



NEW

"TO IMPROVE THE SOIL AND MIND."

SERIES.

VOL. IV.

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No. 10.

PEAT OR MUCK FOR MANURE.

PEAT, or "muck," may be described as vegetable matter in a state of decay. Its origin is somewhat various, being sometimes derived from the branches and leaves of trees, and sometimes from mosses and aquatic plants. It is not found in so large bodies in this country as in the British islands. It is quite common in England and abundant in Scotland; while in Ireland it includes large districts, and even extends up the sides of mountains, covering the earth to the depth of forty to fifty feet, and, by computation, embraces nearly a seventh part of the surface. In those countries it constitutes the fuel of a large portion of the population. That which is used for this purpose, is formed chiefly by mosses, which for ages have continued to grow on these localities. Persons who are acquainted with peat bogs or mosses, understand the process of accumulation; others may not so readily comprehend it. There is a continuous growth from year to year, but the under strata die, are more or less decomposed, sink down, and by pressure are converted into the state which is called peat. We have but few bogs in which peat of so solid a nature as that used in Ireland for fuel has been found. But in some instances our bogs have been dug for the purpose of procuring fuel, to good advantage.

The greatest value of bogs in this country, however, consists in their affording *manure*. We shall enter into no particular discussion, at this time, in regard to the specific operation of peat or muck in benefitting vegetation—whether its action is wholly mechanical, producing in the soil the requisite physical texture, or whether the substance is actually "dissolved" and absorbed by growing plants—its utility in augmenting the yield of various crops, has been abundantly demonstrated.

It is, perhaps, proper to make a distinction between peat and muck, though the terms are frequently used synonymously. Peat should be considered as referring more particularly to the composition of bogs, and which has become so solid that when it is cut in pieces they will retain their form; and muck to the loose matter which has been accumulated from leaves, or the washings of woods and fields.

The value of these substances as manure, especially for immediate use, varies greatly, according to their origin. The muck found in ash, maple, or elm swamps, or which is formed by the leaves and small branches of hard-wood trees, is usually far better than that found in pine, cedar, or hemlock swamps, or in legitimate peat bogs. The former will generally produce excellent effects on most crops as soon as it is applied; the latter must have time for decomposition, and general-

ly requires to be mixed with some substances which will assist the development of its fertilizing qualities. It is frequently remarked, that muck from the localities last mentioned, is *sour*; and chemical investigation has shown that it does in fact contain an acid, which is called *tannin*. The bark of oak, and of most hard wood trees, contains this principle; but when the bark or trees decay, the acid is soon dispelled by the action of the air and rain. With the remains of resinous trees, such as pines, cedars, &c., it is not so. Either from the acid being combined with resin, or from some other cause, it is much less soluble; and muck which is mixed with the rubbish of these trees, produces at first rather injurious effects. The refuse of wood-piles, composed of chips and bark chiefly from pine, is sometimes applied to land as manure; but the yellow color and stunted appearance of vegetation in such cases, shows that the application was rather poisonous than beneficial.

In many situations, we believe that the substance of swamps and bogs constitute the best and cheapest material which can be used, to a certain extent, for enriching the soil. Its application is attended with the greatest benefit on such lands as contain least vegetable matter; and it so happens, fortunately, that those portions of the country which are most deficient in this respect, are generally best supplied with the article to which we refer. The question is, how can it be used to the best advantage? We have before remarked that some kinds of muck operate beneficially as soon as they are applied, and without admixture with any other substance. Such, however, is not very abundant, and with that which is ordinarily met with, the case is different. The acid must be got rid of, and the vegetable food which the peat or muck contains, rendered soluble. There are several ways in which this article may be usefully compounded, some of which are the following:—

1. Composted with animal manure. This mode has been practiced more or less for many years. Lord MEADOWBANK's experiments, more than forty years since, proved the value of peat compost. He found that any substance which would occasion a fermentation of the peat, would render it good manure; but stable or barn-yard manures were mostly used. He found that one load of manure would ferment three loads of peat; but it is evident that the proportions must vary, according to the strength of the manure and its tendency to heat, and the *sourness* of the peat. The peat and manure are laid in a pile, in alternate layers. It is best to dig the peat in autumn, when the bogs are usually driest. The compost may be formed

in spring, and will ferment sufficiently to be used for crops in three or four weeks, according to the state of the weather—the change being, of course, most rapid in a high temperature.

ELIAS PHINNEY, Esq., of Lexington, Mass., one of our most judicious farmers, has ascertained that a cord of green dung will convert twice its bulk of peat into manure of equal value to itself.*

The beneficial action of the manure in this case is ascribed to two causes. The ammonia of the manure being an alkaline salt, neutralizes the tannin, and the heat, in connexion also with the ammonia, renders the vegetable nutriment of the peat soluble. It is undoubtedly one of the best modes in which the farmer can use peat or muck. But he should never lose sight of the importance of using a sufficient quantity of muck in his stables and yards, to absorb and prevent the waste of all liquid manure.

If vats or reservoirs are formed for the reception of urine, the liquid may be used with excellent effect on peat. Urine is richer in ammonia than dung, and its action on peat is consequently more powerful. CHEEVER NEWHALL, Esq., of Dorchester, Mass., prepares large quantities of peat in this way, and considers a cord of peat saturated with a hogshead of urine, more valuable for any crop, than a cord of any kind of dung made on the farm.

2. Doctor DANA, in his *Muck Manual*, observes that—"the power of alkaline action is alone wanting, to make peat good cow dung,"—that "by the addition of alkali to peat it is put into the state which ammonia gives to dung." The effect of alkali is undoubtedly similar to that of the ammonia of manure. Its chief value probably consists in its neutralizing the acid of the peat, though, as Dr. D. observes—"the solubility of geine [vegetable mould,] is wonderfully increased by the action of alkalies."

Of the alkalies to be used, Dr. DANA gives the preference to wood-ashes, soda, (or white ash,) and potash; and the proportions in which he recommends these substances to be used, are—for a cord of peat, 16 to 20 bushels common house ashes, or 92 lbs. of pot or pearl ash, or 61 pounds of soda. The alkalies to be dissolved, and the solution applied to the peat in layers, as the heap is being made up.

Leached or spent ashes may be used instead of the articles above named, but the quantity must be proportionately greater. Dr. DANA refers to GEORGE ROBBINS, of Watertown, Mass., who used for four years no other manure than one part of barilla spent ashes to three of peat, mixed together. The peat was dug in the fall and mixed in the spring. Mr. R. kept eleven horses, four cows, and one hundred hogs, but sold all their manure, and used only the compost on his land, which was a sandy loam. The effects are said to have been excellent, Mr. R.'s crops being equal or superior to any grown round him.

The "salt lye" from soap-boiling establishments, and soap-boilers' waste of every description, can be used with great advantage in the preparation of peat.

Dr. DANA greatly prefers ashes, or the articles above named, to lime. He does not, he says, "go for lime, but for soluble alkali. Carbonate of lime alone is not expected to produce immediate results, and seldom has, nor can be expected to produce visible effects in the first year of its application. * * * Alkalies and peat or swamp muck, are within the command of almost every farmer. Lime is not [always] within reach, and besides, requires no small skill in its management."

Dr. D., however, recommends that experiments be made with what he calls a "soluble salt of lime," which is prepared by mixing lime with salt. He advises the manufacture of a compost as follows:—

"Take one bushel of salt and one cask [four bushels] of unslacked lime. Slack the lime with the brine made by dissolving the salt in water sufficient to make a stiff paste with the lime, which will not be quite sufficient to dissolve all the salt. Mix all the materials then well together, and let them remain together in a heap for ten days, and then be well mixed with three cords of peat; shovel well over for about six weeks, and it will be fit for use."

Twice turning the heap over would probably be sufficient. The cost of this compost,—reckoning the peat at fifty cents per cord in the bog, and charging one dollar per cord for digging and carting it, the salt at sixty cents per bushel, the lime at one dollar and twenty cents per cask—would be \$6.30 for three cords, or \$2.10 per cord. In general, however, the peat would be of trifling value before it was dug, which would make the cost of the compost less.

3. The mixture of peat with animal bodies, where they can be obtained, forms a compost of the most powerful kind. In some instances, slaughter-house offal, fish, the carcasses of horses, and other animals, may be obtained with little or no expense. They should be at once surrounded by peat, if that substance can be had—if not, vegetable refuse and earth will absorb the gases which are disengaged by putrefaction. Dr. DANA says, "it has been actually proved that a dead horse can convert twenty tons of peat into manure more lasting than stable dung." Without vouching for the absolute correctness of this rule, the writer can say that his own experience has convinced him of the great value of animal matters in preparing peat for manure.

4. When the substances above named cannot be obtained to advantage, *charring* peat has been found a useful process. Peat and peat rubbish, such as tussocks, and turf mixed with the roots of bushes, may be either burnt, and the ashes spread on land, or they may be only partially reduced by fire, so as to admit of their being used for manure. Clear peat may be charred in large quantities at a small expense. The peat should be first partially dried; then a fire may be kindled, and the lumps of peat gradually placed round. When the fire is fairly kindled, it should be kept in a smothered state, because if it breaks out in a blaze, it will reduce the peat to ashes, instead of leaving it in a charred or half-burnt state. Two hundred bushels of this peat charcoal per acre, is considered equal to a dressing of ten to fifteen tons of yard manure. This, however, no doubt depends much on the quality of the peat. The heat which the peat goes through, dissipates its acid, and reduces it to a pulverized state, in which it benefits vegetation immediately.

INCOME FROM POULTRY.—It is stated in the report of the committee on fowls, made at the last Worcester (Mass.) Cattle Show, that EBEN LINCOLN, of Grafton, from 27 fowls, in seven months, obtained 199 doz. eggs, which sold for \$28; and 92 chickens sold for \$23; total, \$51—besides 29 doz. eggs used in his family. The food of the fowls was, "some meat, some fish, all kinds of grain, some lime, or pounded shells, enough sand and water, a warm dwelling, and good roosts." Reckoning the 29 doz. eggs which were used in the family at 14 cts. per dozen, (the price which those sold brought,) the whole income from these 27 fowls in seven months, would be a fraction over \$55.

VALUE OF READING.—A Chillicothe paper says, "We know a man who engaged his wheat, (600 bushels,) at \$1.12½ cents per bushel. His neighbor, who had a like amount, engaged his a few days afterwards at \$1.00 per bushel, getting for the same amount \$75 less. The former read the agricultural intelligence—the other did not, and lost enough to pay for a paper a lifetime."

* Dana's Muck Manual.

FAIRFAX COUNTY LANDS—EMIGRATION TO VIRGINIA.—No. II.

HAVING in the March number of the Cultivator, given your readers some of my "first impressions" of this portion of Virginia, with a promise to resume the subject on a future occasion, I avail myself of a leisure hour to fill up in some measure the imperfect sketch then furnished, as well as to reply, through the medium of your valuable and widely circulating pages, to the numerous inquiries which have been addressed to me from nearly every section of the union, in reference to the facilities here afforded for agricultural emigration and settlement. A longer residence in, and a more intimate and familiar acquaintance with the advantages and disadvantages of this section, in regard to the principal objects which impel northern and eastern men to seek its soil, enables me, I trust, to speak more confidently of the various inducements which it presents in this point of view. The fact, moreover, of which I am not unaware, that several very worthy and intelligent persons, have within a few years past removed hither from the north, and failing from a variety of unforeseen circumstances to realize the expectations held out to them, have returned, with anything but a favorable impression of the country, presents an additional inducement to a faithful exposition of the state of things here, so far, at least, as it may be within my power to give it.

The peculiar *advantages* which the enterprising and industrious northern agriculturist may reasonably calculate upon, from an emigration to this portion of Virginia, consist, first, in the low price and intrinsic value, for all ordinary agricultural purposes, of the land, situated within half a day's ride of Washington, Alexandria, or Georgetown, three of the best and most reliable markets for farming produce of every description to be found in the union. The greater portion of these lands have, at no very distant period, been subjected to an exhausting process of cultivation, by the owners and occupants of large plantations, and subsequently abandoned for more fertile fields; and the soil, consisting chiefly of a clayey loam, being naturally rich, and left to its own resources for a succession of years, regaining all its elements of fertility, with no other drawback than the luxuriant surface growth of pines and evergreens, requires only the judicious application of a little labor and capital, to restore it to its original value. The unbiassed testimony of competent and disinterested judges will bear me out in the assertion, that numerous farms, of from one to five hundred acres, within 30 miles of the Washington market, which have been purchased at five, ten, and fifteen dollars per acre, are, in all essential respects *fully equal in intrinsic value to northern farms which command without difficulty from forty to sixty and seventy dollars*. They are equally susceptible of profitable cultivation—require no greater outlay of capital and labor to the production of equal and often of superior grain and grass—are equally well adapted to the growth of wheat, rye, oats, barley, corn, potatoes, turneps, and all other vegetables suitable for market or family consumption—afford far greater facilities for the cultivation of fruit of every description—and are much better adapted from the mildness and benignity of the climate to the raising of all kinds of stock. They are liberally supplied with timber of the best quality—oak, walnut, locust, chestnut, maple, cedar, and pine—abundantly furnished with water—and deficient only in buildings, fences and other improvements, the result of active cultivation.

The frequent consequence of this state of things, has been the inconsiderate investment, by many of the northern emigrants, of all or the principal portion of their available means in the purchase of these cheap and valuable lands, in quantities greater than was at all requisite for ordinary or profitable farming operations, with the view, either of future speculation, or ultimate occupation, and provision for their families—leaving themselves virtually without the means either of making those improvements and bestowing that cultivation upon the land which alone could adequately call forth its resources, or of meeting those current expenditures for the support of their families necessarily incidental to the first year or two of a new settlement, and which cannot, in the nature of things, be expected from their first experiments in the cultivation of the soil. Hence arises one great source of disappointment and failure; and after a few years' struggle, the improvident adventurer, having parted with all his capital in the purchase of his land, and finding himself unable to make the necessary improvements, and at the same time to derive a comfortable subsistence for himself and his family from the proceeds of his farm, abandons the undertaking in disgust, and perhaps returns to the north, with a melancholy description of the barren and worthless soil of Virginia. Had he reserved a suitable portion of his pecuniary means, for the gradual improvement of this land and the current expenditures of his family, a far different result would have ensued.

2. The *healthiness* of the climate, attributable in a great measure to the uniformity and benignity of its temperature, and the mildness of the winters, constitutes another important attraction to the northern emigrant. But from this very circumstance arises another very prevalent source of disappointment. The only disease which may be regarded as peculiar to the climate, is that familiarly known at the west as *fever and ague*, and here softened down into the appellation of the *chills*. The vicinity of rivers and streams of water, accompanied by imprudent exposure to the morning and evening exhalations produce, more frequently during the decay of vegetation at the close of summer and beginning of autumn, those disagreeable consequences which are attendant upon similar causes everywhere else; and the robust emigrant, whose active energies are periodically prostrated by this unwelcome visitant speedily connects his untoward fortune with the soil itself and imbibes a thorough distaste for his "new home." Now it requires but a moment's reflection to perceive that not the slightest *necessity* exists for that degree of exposure which here, as elsewhere, induces disease—that healthy locations abound—that no situation or condition is exempt from liability to those chronic or local maladies which seem inseparable from humanity—that even *fever and ague* is preferable to *pulmonary consumption*, for which it is, with us, to a very great extent, a substitute—and that ordinary prudence and attention to the laws of health, will, in nine cases out of ten, operate as an infallible preventive to the attacks of this insidious foe.

I have now briefly alluded to the principal causes which have, in many instances, combined to render a permanent residence in this section of country distasteful and virtually impracticable. Regarding them as I do, as by no means formidable, when properly understood and intelligently guarded against, in the genial mildness,

and benignity of the climate, the natural fertility of the soil, and its adaptation to the various crops desirable to the practical agriculturist, the proximity to a steady and permanent market, at which all the productions of the farm and the garden may readily and promptly be exchanged for amply indemnifying prices, the length of the season during which cattle and stock of every description may find their own support, independent of the special care of the husbandman, the presence of all those elements of civilization and comfort, which the vicinity of a large capital and its

suburbs can afford, and of a society than which none in America or Europe can be superior—in these, and amid those associations of rural beauty, grandeur and sublimity which abound on every hand, it surely cannot be difficult to find all those sources of enjoyment and of individual and social well-being which render the cultivation of the soil—the noblest employment of humanity—a luxury and a pleasure unsurpassed, at least, if not unequalled in any other portion of the Union.

S. S. R.

Lake Borgne Place, Prospect Hill, Va., Aug., 1847.

MICHIGAN AS AN AGRICULTURAL STATE.—No. III.

TIMBERED LANDS OF MICHIGAN.—It has been already stated that nearly all the border counties of the peninsula, and considerable tracts in the interior, may be designated as timbered lands, in distinction from the openings, plains, and prairies, already described. These border tracts are underlaid by thick deposits of yellow and blue clay, the extent of which conforms nearly with the characteristic growth of timber above mentioned, and it will also be generally found that the timber tracts, wherever they occur, have a foundation or subsoil of clay. These blue and yellow clays are of a marly character, and highly fertile, but as they do not readily absorb the rains, the soils, where constituted of them, are more cold and wet, and less adapted to wheat than the porous, dry soils, described in my last communication. In general, however, these clays have a covering of gravel and sand, of the same or similar character to those there described, and varying in depth from a mere covering of a few inches, to many feet. Throughout most of the eastern border counties, the slight depth of the latter allows the clay greatly to influence the soils; so that, in connection with the plane surface, origin is given to some extensive swampy lands. These, in the early history of the country, when nothing was known beyond them, gave an unfavorable impression abroad of the whole state.

The timbered tracts in general, and particularly on the western side of the peninsula, are of a very different character. They consist of fine rolling tracts of sugar maple and beech, with intermixture of white-wood, black walnut, white ash, oak, elm, and white pine; the soil being a deep gravelly loam, resembling that of the openings. In the early settlement of the state, the openings and prairies were usually first selected, because of the ease with which they could be brought into crops, and from the admiration excited by their beauty and singularity. Since the timbered lands have become better known they have been found to possess some advantages over the openings, besides being, in many respects, decidedly superior to most of the timbered lands of the eastern states. These advantages I will endeavor to sum up as briefly as possible.

The soils are of more lasting character than those of the openings, not commencing to degenerate until after much cropping. They are better adapted to the cultivated grasses, which do not flourish well on the dryer soils of the openings. These timbered lands are easily cleared, there being but little underwood, and a large proportion of the timber being clean maple and beech, often sufficiently open to admit a team to be driven through the woodland without much difficulty. Some of the lands are not more densely wooded than what are called "timbered openings."

Slashing is done for \$1.50 per acre, after which the

tops are burned, and a crop got in among the logs, which are allowed to become thoroughly dry, and are then consumed. This first crop is often as large as that obtained elsewhere after the most thorough improvement. The whole cost of clearing complete may be estimated at from \$6 to \$10 per acre. No "breaking-up team" is required, and the work may be proceeded with by those who have only their hands for capital. It has become an extensive practice, for the past few years, to collect the ashes produced by the burning, which are found, with little additional trouble, to pay the whole cost of clearing.

As the sugar maple is abundant, this source of profit is also extensively resorted to, and adds much to the gains as well as comforts of the farmer, without withdrawing his labor from the ordinary operations of agriculture.

The pine of this region generally occurs intermixed with the maple, beech, and other hard timber, and is of the very largest size. It is to be remarked that where pines are found under these circumstances, they are not only superior to those which grow in the "pine districts," so called, but are not, like the latter, indicative of a light soil. On the contrary, they flourish here upon strong sandy or gravelly loams, which are capable with ease of the highest degree of cultivation. An acre will frequently contain from five to thirty of these trees, and, as mills are not wanting, any one of them is often worth to the settler more than the cost of the acre that produced it.

This country is abundantly supplied with springs and water-courses, varying in size from considerable mill streams to small but permanent rivulets, which are seldom or never marshy. Fine lakes, well stocked with fish, are also numerous; so that during a very dry summer, the inhabitants never suffer from destitution of water, as is sometimes the case on the openings and prairies.

The soil of this region, and its undulating surface, are well adapted for dry and permanently good roads. It is also decidedly a wheat soil, easily tilled and very productive, yielding from 20 to 40 bushels per acre. I except, of course, those timbered lands which have a decidedly clay soil, and which are best adapted to pasturage. All the large streams have rich bottoms, which yield the most abundant crops of maize, oats, and potatoes. The black walnut on these bottoms, frequently attains to 18 feet in girth.

Every year is giving increased importance to the timbered lands of this state, and when we reflect that the majority of immigrants are from education and habit accustomed to timbered districts, and consider the advantages possessed by the one here described, in durability of soil, ease of tillage, privileges of markets, water, mills, and lumber, and the comparative cheapness of the lands, I feel convinced that the day is not

distant when they will rank with the best settled and best cultivated portions of our country.

I shall here close my observations, remarking that, as I have confined them strictly to the agricultural relations of the state, some topics have been omitted which I would gladly have dwelt upon. Prominent among these is the school fund of the state, which af-

fords the benefits of education to the poor equally with the rich. As your motto is "the improvement of the mind," as well as "the soil," this brief allusion to one of the most distinguished advantages of Michigan, may not at least be inappropriate.

B. HUBBARD.

Detroit, Michigan, 1847.

NOTES ON THE CULTIVATOR FOR JUNE.

EDS. CULTIVATOR—Whilst taking the shade, I have perused your June number, and like unto the rest, it is "worthy and well qualified." I am tempted to make some remarks on the various articles embraced therein, and on other subjects brought to mind by its contents. With no unkindness do I write, and only desire the good of the parts and the good of the whole.

"Breeding Horses, No. 1."—Having had some of those high bred stock for years, and knowing their worthlessness for the plow or the saddle, I beg no one to try more than one. A dash of blood in a saddle, harness, or plow horse, is to be wished for. Some one must therefore keep the pure breed; let it be those who need not all their stock for use. I am breeding my mares to Jacks, and think from one trial that they cannot be excelled by the common stock. Preserve me from such "pure breds" as I have, Monsieur Tonsen, John Richards, or —.

"Large pigs," p. 173.—"The pigs were all of one litter." "Two were nine months and twenty days old, and the other two were nine months and twenty-eight days old." A Yankee trick. [We do not understand our correspondent. Surely, he cannot mean that the statement of the four pigs being of one litter, is false, because they were not all killed at one time.—Eds.]

"Soils which Run and Bake," p. 174.—Our soil in this region, back from water courses, after the decayed vegetable matter has passed away, is of a yellowish cast, not analyzed that I know of, but is evidently not "pure clay." I think it contains more silex, with some vegetable matter. After a heavy rain, the water is of a dirty yellowish cast, not as from the red clays of Carolina; indicating a solution and mixture of the earth; this muddy turbid water will of course, where it runs not off, settle into the crevices and vacancies or hollows of the earth, and where the water is evaporated or percolates, the earth in mixture is deposited. The sun then bakes this mud into a hard crust. This is the soil here "which runs and bakes." The matter was laughed at when our worthy Eufaula brother, who has since departed this life—sweet be his repose—alluded to it in your paper. I forget who did allude to it, but "it is as true as preaching." To plow our clay lands in the fall will insure harder earth to plow in the spring than if it had not been done; because the plowing leaves the surface uneven, leaves vacancies, (no such thing as a vacuum, of course;) this uneven surface is melted by the rain and fills the crevices; the rain beats the earth, and the settling by weight of heavy rains, gives the hard earth; whereas, the surface settling by light rains and its own weight, forms a thin crust that admits water to pass through slowly and to run off rapidly.

"Hydraulic Ram," p. 180.—If somebody will send me one to put up at a neighbor's, so that people could see it be no humbug, I think they would sell at \$25.

"Salve for an inflamed sore," p. 182.—No accounting for taste—honey and the yolk of an egg will be as certain to draw, especially, as many old women's pre-

scriptions. I have known lard and ashes, lard and salt, used in castration. But don't call these remedies to allay inflammation. Simple applications are best; fresh lard as good as any.

"Break the Crust," p. 182.—Try it on cabbage. I generally get the start of my neighbors by this very plan, and tell them to stir often. A good steel rake is a good implement, better than a hoe.

"Milking," p. 183.—I have known a "darkie," over in the valley of the Mississippi, where we "outside barbarians" need so much enlightening, take a bucket of water and a towel to the "cup-pen," (cow-pen, Africanized.) I can assure Mr. or Mrs. Queens County, that one farmer's wife would get angry if her darkie dared to milk without using water and a towel.

"Plan of a Barn," p. 184.—I wish I could draw designs; I would give you a plan of a barn, on a certain plantation, where "cotton are grown." May be you can have it done from the following. A lot fenced in, after the old Virginia fashion, about ten rails high, part of the rails with one end on the ground, a part with rails pushed out so as to be only upon the end of its under brother, a hollow log placed on short blocks, with one end several inches lower than the other, to keep corn from running out at the upper end, which has no closing; a sow crawling up into the upper end, with a half dozen shotes squealing near by, complaining, no doubt, of the "old un" for being their "illustrious predecessor." Down in one corner of the lot are several fodder stacks, with the blades pulled out from one side, which gives the "Grecian bend" to the upper works; the corn crib built of poles, and the roof weighted down with a similar product. Talk of barns! Sheer nonsense. Horses don't require protection in this country; the washing rains are intended by Providence to clean the stock, and the hot sun to dry them. Send a traveller here, to take notes for an agricultural "Cruikshank." I will show him many caricatures, that are true to life.

"Corn in New-York," p. 188.—About 22 bushels per acre! and New-York near the northern limits too! Don't let my Philadelphia brother chip, who vaunts so much about the northern limits see this. Why, sir, as sure as you are born, this county of Hinds, in this state of Mississippi, will put your state to the blush. There are five of one family connection in this western shady side of Hinds, that will beat you to death, and they are all pressing the cotton matter at that. I presume we have over 350 acres in corn, and I think our crop will not be short of 10,000 bushels, and with a fair season, it will run to 14,000. Out of 100 acres in a body, I will take 50 that will tip the beam at 50 bushels per acre. You can beat this, by bringing up your 20 to 100 wagon loads of manure, but our farmers would not know manure if they saw it; and as to work, two light hoeings, and two or three plowings, including sowing of peas, was the tale. Understand, this country is a cotton country. I know of no farm, large or small, where corn is the only product, and

we will average some 25 bushels per acre. This for the south, where corn runs out, and watermelons become woody, will do to put against your poor country.

"*Hoeing or Cultivating Crops*," p. 189.—Press it, just publish this in every May number. It is "*multum in parvo*;" (pardon this foolery.) I mean *much* of great value, *in few words*.

"*The Orchard and the Garden*," p. 191.—Good again. Give those indolent, careless fellows another; old folks used to tell me "whipping was good for boys—it makes them grow." I say, give it these fellows under the ribs, friend T. I know many people who go to great pains in planting trees in a foot and a half hole, and leave them to cows, hogs, horses, and all else—grass, weeds, oats, and rye, not excepted. Lash them well.

"*False names to Apples*," p. 102.—Why not say to all fruits. I have been sorely annoyed, and by prominent nurserymen. I have a pear tree with the first pears now on it, planted here in 1832, the leaves about as large as your shillings, or our bits. I received the Red Cheek Melocoton, under two names, from the same nursery, as Lady Gallatin and Yellow Melocoton. Also Noblesse and Vanguard; Druid Hill, with globose glands; Catharine, with globose glands, and so on. Ought we not to have a resource on nurserymen who would thus take our dimes, and permit us to pay freight, cultivate, and lose the land for years, before we find out our error. Induce your legislature to pass a law making a penalty of ten times the cost.

"*Coating for Houses and other Buildings*," p. 194.—Is this a plaster to be spread with a trowel, or to be moulded into bricks, or mixed with water? About as satisfactory a recipe as was a Yankee apothecary's answer, to W. C. Preston, when asked in a court, how large a certain combustible was that he sold,—his reply was—"about the size of—of—a piece of chalk, sir."

"*Humbuggery*," p. 195.—*Mercy on me*. Don't go into the abstrusities. If you want to publish humbuggery, just lay your hand lightly on the Alpaca, or "African sheep," so that you may be able to wield the sledge hammer when I name "Mastodon cotton" seed, by R. Abbey. I see a celebrated house in England

writes to "we softs," that this cotton would not sell at public or private sale, and here are R. Abbey, of Yazoo city, and your humble servant, trying to sell the seed at \$4 per bushel, or as much less as it will sell for. I am in for it, having about half an acre of my poorest land planted with the seed. What my unfortunate friend will do, unless he has acted like myself—not planted this seed—the deponent sayeth not. But this house, Todd, Jackson & Co., have only sent out in 1847, what Mr. Abbey heard from Northern spinners in 1846—that Mastodon could not be used; so I have been told by a respectable gentleman. That "Newfane Yankee" sells something, but we Mississippi Yankees, who sell "Mastodon cotton" seed, sell nothing. Which is the best Yankee?

"*Horse Powers*," advertisement, p. 198.—Is it strong enough to run a grist mill that will grind 4 or 5 bushels per hour, or say 40 to 50 bushels per day? We, of this country, want such things, and a very choice and sure-working article had better be presented to as clever a man as the writer of this is, so it should be seen and known, than to be advertised for nothing. I am sure \$100 each could be got in Vicksburg, if its performance was once seen and it was known to wear well. I will erect a house, pay all expenses out, and pay \$50 for a power strong enough to grind meal, run a straw cutter, corn and cob mill, &c., &c., and will invite examination. I have gearing ample for my use, but I can use one to a little advantage in being convenient to stables; and to have one where my fellow citizens can see it, I will pay \$50. The patentee or owner should risk as much as I do—but I would not have a flimsy rattlestaff of an affair, if it was varnished, and had the "name of the grower marked on it."

We are in need of many of your labor-saving and economizing articles, but are afraid to risk ordering by advertisements. Our powers to gin-stands, cost us about \$150, and boarding one to two or three men for one to two or three months. I think a running gear and cotton press cannot cost usually, with iron segments for the gearing, less than \$250, at the lowest rate. It seems to me, we ought to get equally good for \$150 to \$175.

M. W. PHILLIPS.

Edwards, Miss., June 21, 1847.

AGRICULTURAL SCHOOLS.

IN view of the approaching session of the Legislature, I ask a small space in your valuable paper, for the consideration of a subject intimately connected with the well being of the farming interest, and one which merits the serious consideration of the legislators and statesmen of the state.

The duty of the state to provide the means of education for all those who are to become citizens, will not, I think, be questioned by any reflecting man. If our republican institutions are good, then it should be the desire and the aim of legislation to perpetuate them. If they advance the best good of all the people, then should the statesman's care be continually directed to preserve them—to provide the means and multiply the safeguards against anarchy and dissolution. This duty cannot be neglected without high criminality, and the legislature which shall fail in this particular, is guilty of treason to the commonwealth, for its peace, prosperity, and very existence is thereby put in peril. It is true that it is negative in its character, but none the less dangerous,—because the omission to do may prove, however, as disastrous as the overt

act. With these principles in view, and looking to these ends, education presents itself as a chief means; not, indeed, the education of the few, but the wide and universal spread of knowledge. In republican states, all the people are equal in political privileges, and it is just as important that the poorest be enlightened as the richest, for so far as government is concerned, they are partners, equal in all respects. If the education of the people is then essential to the full development and perpetuation of republican government, it follows, as a matter of course, as the duty of the representative of the people—those upon whom the public good, or the interest of all is thrown—to provide to the fullest extent, the means for the education of the people. "Knowledge is power." In an individual and in a free state, it is more than power; it is the very life blood of the body politic. And what is knowledge in a country of freemen? Not, surely, great acquirements on the part of a few—not a few graduates from three or four colleges—but it means the universal diffusion of intelligence—a general understanding and appreciation of political rights and privileges, on the part of the

masses, united with a correct knowledge of the business, and an acquaintance with the best manner of prosecuting the various callings in which the citizen is engaged, in view of the lights of science, and the continual improvements which science and ingenuity is making. It is not needful that all the people should be scholars, but safety demands that all be well informed—free to think and act for themselves.

These general principles, I presume, will not be controverted; but I shall be met here, and told that the duty of the state has been fulfilled—that a general system of education has been provided, and that agricultural schools are not necessary for the dissemination of general intelligence, and that they are not legitimately within the scope of legislative aid. I grant the state has done much; her common school system is worthy of commendation; but even that, good as it is, may be improved. Much may yet be done without overstepping the bounds of propriety, to perfect and render still more useful the system.

The science of agriculture has just begun to develop itself in this country, and that most useful of all the sciences, may, I imagine, with the aid of the fostering care of the legislature, be engrafted upon, and be made a permanent part of the common school instruction of the Empire state; and surely, if this be so, no one will turn away from the subject and say it is special, and does not come within the proper action of a legislative body,—the object is designed to benefit one class, and not the whole, and hence it must be denied. If this view of the subject be true, then I say, away with it, for the farmers of this state will never ask any special favors—never ask to be enriched or benefitted at the expense or to the injury of any other class. Although the farming interest has ever been thrown in the background, and even pirated upon to enrich other callings, yet the tiller of the soil will never be guilty of the meanness or injustice of asking any measures which are not just and right. That it is proper for the legislature to aid by the funds of the state in the establishment and maintenance of agricultural schools, is clear, for the following, among other reasons:

1. Agriculture is the *great interest* of the state, and it will be greatly promoted thereby; it is the great and leading interest, because it employs the most capital and labor—yields the most, not only in dollars and cents, but produces the raw material for most other callings, as well as the articles necessary for the subsistence of the whole. Again, it is the leading interest, because every other is more or less dependent upon it, and are only flourishing and prosperous when it is prosperous; and because it embraces within its direct influence the great mass, and in its indirect, nearly the entire of the state. The establishment of agricultural schools then, to aid and promote this great and important interest is but an act for the public good. Either by direct consequence, or through the means of necessary dependence and sympathy.

As a second reason, I remark that agriculture is eminently promotive of virtue, both public and private; that those who live upon the farm and labor in the fields, are, to a great extent, removed from the seductive charms of vice, which present themselves with such fatal fascination in our towns and cities. The state, then, is bound to watch over this interest, to protect, encourage, and improve it, for it forms the great conservative body, upon which, in times of danger and peril, it must rely for support and safety.

As a third reason, I remark that schools are imperatively demanded as an act of self-defence on the part of the state. Our farms must be made more productive, and this can only be done by a better knowledge of the true theory, and more attention to their cultivation. Science, with her mighty power, must

be called to our aid. And why? it is asked. I answer, because the great states towards the setting sun, with their boundless acres and their virgin soil, have, and are opening a fearful rivalry with us. They are luring our people to their more prolific bosom, and they are pouring in millions of surplus productions to cheapen our markets; and ere we know it, we shall be shorn of our power, and be forced to yield the proud title of Empire State, unless we bestir ourselves, and study out new means and processes of production, and apply them to our good, but long used and half cultivated soil. I would not snap and snarl like a jealous lover at the prosperity and increase of the rest, but I would say—go on; your glory is our glory, and your prosperity our good; and would then, by noble example and improved cultivation, lead on—keep in advance in the future as in the past, of all our sister states. And in order to do this we want more knowledge, and that we can best attain through the school-house. It is undoubtedly true, that nine-tenths of our farms do not produce one-half of what they are capable of doing, and if we would keep our sons from the cheap and fertile lands of the west, we must learn them how to farm and make money on less quantities of land. And the legislature, looking to the good of the state, is bound to aid by all constitutional means, in so desirable an object.

Again, I remark fourthly, that the aid and support of agricultural schools, is but the promotion of the general system of education, for it is not needful nor necessary to separate agriculture from our schools as they now exist, and establish separate and entirely independent establishments; but, on the contrary, the very object of aid from the state, is to engraft agriculture permanently into, and make it a part and parcel of the great system of instruction now so bountifully supplied by the state. The great point is to get started—to prepare competent teachers, and provide proper books, and to demonstrate by experiment the practicability of the thing. And then our glorious common school system will answer to carry it on and perfect it, without increase of taxation. But I am making this paper too long. In another number, I will speak more definitely of the feasibility of the plan of agricultural schools, and of their great importance to the body of the people of the state; and in the meantime I ask the members of the legislature to look at the subject, examine it carefully, and then act as their better judgment and sense of duty shall determine.

D. A. OGDEN.

Penn Yan, August 6, 1847.

THE TOMATO.—The use of this fruit as food, is said to have been derived by us from the Spaniards. It has been long used also by the French and Italians. The date of its introduction to this country is unknown, though it is only within a recent period that it has been adopted as a culinary article. Thirty years ago the writer cultivated it under the name of *love-apple*, but had then no idea that it was of any value except as an ornament to the flower garden.

Hon. E. WHITTLESEY, in a letter to Dr. KIRTLAND, (published in the *Western Reserve Magazine of Horticulture*,) states that the tomato has been used as food in Ohio, more than half a century. He says—"Col. Vigo, an Italian gentleman, lived at Vincennes, and prepared the juice of the tomato to mix in beef gravy, and for making catchup, more than fifty-two years ago. Colonel Hamtramck raised the tomato at Detroit and Fort Wayne before 1803. Judge Thomas furnished his table with the raw tomato at Lawrenceburg, Indiana, in 1807. The French stewed it at Kaskaskia, in 1807 and '8."

BREEDING HORSES—No. V

In selecting a stallion or mare for breeding, the first object should be to see that they possess the requisites, individually, which are desired in the stock to be bred; next, to obtain a knowledge of their progenitors; because, on the principle that "like begets like," defects as well as excellencies are transmitted by parents to their offspring. Hereditary defects are not always apparent—that is, they sometimes lie dormant for one generation or more, and then break out. Before animals have produced progeny, the best evidence of what their progeny will be, is what their ancestors have been, because there is a tendency to "breed back." Animals of the same blood, however, are not equally valuable as breeders; hence, the surest evidence of the value of a breeding animal, is the character of the stock it produces. Thus the value of pedigree consists in affording, in advance, an *indication* of the value of an animal as a breeder, but the character of the offspring and descendants, may be regarded as exhibiting the *degree* of value it possesses—the one may be regarded as *prima-facia* evidence, the other as demonstrative.

The mare should possess, as the first and most important requisite, a good constitution and healthy habit. She should be free from diseases, both of a hereditary and incidental nature. Her form should be that which denotes strength, energy, and endurance. She should possess an intelligent and tractable disposition,—qualities which add value in many respects. They render animals more safe and trust-worthy in all situations, enable them to perform their work in a manner more easy to themselves, and more agreeable to their drivers. In fact, such a disposition amounts to an actual saving in the wear of the animal machine, and insures its longer duration.

The stallion should possess the form and requisites necessary in the breed or variety to which he belongs, in the greatest practicable degree. In regard to form, Mr. YUATT has well described what is deemed the most important point. "If there be," says he, "one point which we should say is absolutely essential, it is *compactness*—as much goodness and strength as possible condensed in a little space."

A capacious chest—not too wide—in a roadster or carriage horse, but deep and rounding—is an essential point, both in the stallion and mare. A large chest gives room for large lungs, which are absolutely necessary to give *wind* to the horse. The blood must flow through the lungs, and there part with a portion of its carbon, and receive in its place a due quantity of oxygen. This is essential to life. In rapid exercise, respiration is quickened, a greater quantity of blood is sent to the lungs in the same time, than when the animal was at rest. Unless there is room for this, and for the free action of the lungs under this pressure of blood, the process of oxydation will not be properly performed, the circulation of the blood will be checked, respiration will be impeded, and the animal may die of suffocation. A horse with small lungs cannot long bear violent exertion; hence, as Mr. YUATT observes, when speaking of the hunter—"the majority of horses that perish in the field, are narrow chested."

The head should be rather small, neatly turned, and broad across the forehead; the face straight, and lean from the eyes downward; the nostrils large and expansive; the jaws well rounded with full, strong muscles. This latter point indicates that the animal has a firm,

muscular system, and horses which have it, grind their food more thoroughly when they become old, and do not show old age so soon as those whose jaws are lank and thin. The eye should be full and bright, the ear thin and upright.

The shoulders should be oblique, and well laid in at the top. It may be safely asserted that no good roadster was ever known with upright shoulders. The legs below the knee and hock should be clean, the bone flat, the sinews large and prominent, making the shank wide. The knee and hock should be low, or well "let down;" the fore-arm and thigh large and muscular; the hock wide, free from lumps or kernels, and the cord above should run a good distance from the tibia or lower bone of the thigh.

Did time and space permit, the advantages of all these points might be shown on mechanical principles. There are many other points which should be regarded in selecting horses for breeding, but the above may be considered the most important, and the present is not the proper occasion for going more into detail. As before remarked, it should be the aim to procure animals which are as perfect as possible in their outward form and internal structure, because on this obviously depends their ability to perform what we require; but with all our attention in this respect, disappointment may sometimes arise. Some animals may, as regards mechanical conformation, be free from defect, and yet be greatly lacking in the power of locomotion. The tangible parts of the machine may be right, and their combination apparently perfect, but the *nervous energy*—that invisible, imponderable fluid, necessary to its proper movements, may be wanting. This vital or nervous energy, is, perhaps, better indicated by the animal's eye than by any other organ. Indeed, the eye may be regarded as the index to the general character in all cases. If this is full and bright, giving to the animal a spirited and lively air, with an expression of intelligence, he will not often be deficient in nervous energy. But the safest test will be an actual trial under the saddle or in harness.

It has been remarked that it may be necessary to breed a stock or family of horses considerably within itself, in order to establish uniformity of characteristics. Some may object that this would be breeding from too close affinities. A dissertation on *in-and-in* breeding will not here be attempted; whatever may be the advantages or disadvantages of that system, the course advised has no special connection with it. In this country, it is seldom or never the case that many horses can be found of precisely the same blood. A single stallion often begets, with the common mares of the country, a numerous progeny. Having had a common sire, *one-half* of the blood of this stock would of course be the same; but as the blood of no two of the dams, perhaps, was alike, there will necessarily be in the offspring an indefinite variation. The breeding of such a stock together could not be called *in-and-in*. Those individuals should be chosen as breeders which in points and qualities approach nearest to the standard that has been adopted. So long as this rule is strictly followed, and none but animals of strong constitution are allowed to propagate, no danger need be apprehended from such an affinity of blood as has been spoken of.

It is not, however, in all cases expedient to confine the selection of breeders to one family. On the

contrary, a change is advisable whenever an animal equally as well bred and of superior points can be obtained; but the selection should always be made from a stock which in its general characteristics closely resembles the one which has before been bred from, otherwise the change may defeat the object desired, by breaking up the tendency of the stock to assimilate to a common standard. With breeds that are already established, the course advised by Mr. Youatt, is undoubtedly the true one, viz:—that “the most perfect of the *same breed* should be selected, but varied by being frequently taken from different stocks.”

The mare is capable of breeding at two years old, and will generally continue to breed till she is twenty. Some individuals of remarkably strong constitutions have been known to rear foals at the age of thirty. But the best period for breeding may be said to be from the fifth to the fifteenth year. In proportion to the strength and vigor of the mare, will generally be the value of the foal. She should be supplied with abundance of wholesome food during pregnancy and while she is suckling. She should not be over-worked at any time, but with proper care may perform light labor about the farm up to the time of foaling.

Breeding mares may be kept during winter at little expense, provided they are sheltered and fed with care. If they are exercised by work every day, they will only need a good stall, well littered at night. If not worked, they should have a yard attached to their stable, or to which they may be taken, where they can have air and exercise. They should not run in yards with horned cattle, because the cattle are liable to gore them. Their food may be hay, or hay and straw cut and mixed together with some shorts, or two or three quarts of corn and cob meal daily. While they are in the yards, they may pick over corn-fodder and coarse hay or straw. Potatoes or carrots at the rate of a peck per day, will keep the bowels in good order, and improve their general health and appearance. If the vegetables are given, the shorts and meal may be omitted, though the latter will be preferable if the mare is worked much.

It is better that the mares should not foal till they go to pasture. They are less liable to accidents when running at large, and the grass will generally give a better flow of milk than the food they will receive in the stable. A shelter from rain should be provided till the weather has become warm. Until the foal is three or four weeks old, it is advisable that the mare should be used but very little. After that she will bear to be put to light and slow draught; but the blood should not be heated, as this would affect the quality of the milk, and might occasion the foal great injury.

At the age of four or five months, the foal should be taken from the mare and weaned. It will be best to put it in some yard or shed where it can neither see the dam nor annoy her by its noise. It should be fed with sweet grass, or bright clover hay, or rowen, with a few oats and potatoes or carrots. This kind of food should be continued through the first winter, and till the animal can be turned to grass the next season. Nothing is more essential to the proper development of the natural characteristics, than liberal feeding, (not *pampering*,) and good care for the first year. It is not recommended to give them a large quantity of grain—that may be too stimulating—but a pint to a quart of oats per day, with from half a peck to a peck of carrots or potatoes, and as much good hay as they will eat during the time they are kept up, will be amply paid for in the growth and condition of the animal. During summer they will require nothing but grass.

After the first winter they will bear rougher usage and coarser fare. An open shed, facing to the sun, will answer for shelter. They can eat some straw,

corn-fodder, and inferior hay, while the weather is cold and their appetites are sharp; but a daily allowance of vegetables will serve to keep up their growth, and may be given to advantage.

They should be early accustomed to the halter and bridle. During the first winter they should be frequently led out, and be taught to go forward and stop at the proper word. They should be used with constant kindness—gently patted with the hand about the head and neck—their legs handled and their feet lifted. Treatment of this sort, commenced when the animal is young, will almost insure a docile and tractable horse; and where proper attention is paid to his education and training, his attachment to man is scarcely less than that of the dog.

The horse may be put to moderate work at four years old; but as his frame does not become fully matured and settled together till he is seven, he should not be subjected to constant and hard labor, till he has passed that age. It has been repeatedly observed that our best and most durable horses have been very carefully used while they were young; and our fast trotters have generally made their best time after they were ten years old. A good horse will work till he is twenty, provided the driver is at all times duly impressed with the important truth contained in the proverb—“A merciful man is merciful to his beast.”

The horse is somewhat more subject to diseases than most of our domestic animals, though it may be safely asserted that a large proportion of them arise from ill usage. It is not my present purpose, however, to speak particularly in regard to this subject, but would recommend Mr. Youatt's excellent work entitled “The Horse,” as containing the fullest, plainest, and best directions for the treatment of this animal under all circumstances.

In concluding these articles, the writer would with great earnestness enjoin upon the breeders of horses, the importance of producing *the best*. The cost of rearing horses, which at four years old will bring on the average from \$100 to \$150, is no greater than that of rearing those which will only bring half of those sums; and in some instances it would not be as much, for it is a fact that the best stocks are the least liable to disease and accidents. Breeding poor horses—such as have neither strength nor stamina to fit them for any *useful* business, always has been and will be attended with loss; while those *really* valuable will afford a remunerating profit. EQUUS.

THE ENGLISH HUNTER.—At the late meeting of the Royal Agricultural Society, Sir HENRY SMITH, after having spoken of the improvements which have been made in various descriptions of stock, said—“But let me call your attention to one branch of produce for which this county of England [Northampton,] was formerly so famed—I mean the English hunter—that class of horse for which England was formerly so famed, and which, while it carried the fox hunter, was also, when exported to a foreign country in time of war, well calculated to teach our enemies that a soldier, mounted on a hunter, was an enemy not to be resisted. Let me, therefore impress upon you, and upon the members of this institution, that you ought not to lose sight of this valuable class of horses in England. I cannot too much, in a military point of view, impress upon the members of this society the importance of preserving this breed of horses, which are at present degenerating in their native land.”

TROTTING HORSES FOR HUNTING.—His Majesty GEORGE THIRD was much devoted to the sports of the chase. It is said that he generally preferred fast trotting horses, when hunting the stag, or on the road, and he mostly left all his courtiers and attendants behind.

AGRICULTURE AND RURAL ECONOMY OF EUROPE.

LETTERS FROM PROF. NORTON.

NO. VIII.

STEAMER WASHINGTON, July 22d, 1847.

MESSRS. EDITORS—I take the opportunity of a leisure hour on my homeward voyage, to continue my notice of Dutch Polders, &c., began in your last number.

I had just finished my description of the drawing and laying out of Polders. These tracts of reclaimed land are not usually plowed, being principally devoted to grazing—for this reason North Holland, being chiefly composed of Polders, is one of the richest dairy districts in the world. The cows are generally in fine condition, and the pastures kept in good order, although in some places the butter cups were rather too abundant. Great pains is taken to preserve the manure in handsome heaps; but, by a strange inconsistency, these are almost always on the banks of some canal or ditch into which they drain, and color the water deeply with valuable enriching materials. Large flocks of ducks and geese are kept in the ditches of these polders, and straw pots are placed in situations convenient for their nests. Swans are also quite frequent.

The Wurmer polder is, I should think, three miles in length, and at one of its angles we found the town of Purmerende. This town is situated in the midst of three large polders—the Purmer, the Wurmer and the Beemster. Its location renders it a great centre for the cheese trade. There is a fair once a week, and we happened to visit the place on that day. The whole space allotted to the market was filled with piles of cheeses, all of them round, and from six to eight inches in diameter. No flat cheeses are made in this section. The sale seemed to be going on briskly. Each lot bought was immediately transferred to the town scales and weighed. Beside the cheese fair, was one for cattle and pigs, in another part of the town. The number of cows for sale was very great, consisting almost without exception of the usual large Dutch black and white breed. The pigs were all enclosed in wicker baskets, something in the same manner that fowls are brought to the New-York markets.

I found that the Purmer polder was richer and more prosperous than the Wurmer, and the Beemster is said to surpass almost any other in Holland.

We obtained admission to one dairy farm, and got as much information as we could upon the actual statistics of their business. The farm was one of about eighty acres. Thirty-two cows were kept upon it, beside a small flock of sheep. At the time of our visit, they were making one hundred and twenty cheeses a week, weighing about five pounds English, each; beside this they made from 20 to 25 pounds of butter.

The dairy itself was very neat, indeed scrupulously so. In the first room, a very long one, stood the vessels with milk, the churns, &c., while on shelves above were placed cheeses to dry. There were numerous little places like stalls, along the sides of the room, and the floors of these were strewn with shells, while around the sides were shelves covered with china. These places were entirely for ornament, the china only being taken down occasionally to be cleaned. The salting is performed in a separate room. There were two vats of pickle—one very strong, and the other a little weaker; in this latter they are first placed. Each cheese is fitted into a little round tub of just the proper size to receive it. These tubs allow the upper part of the cheese to appear above the surface of the

pickle. Each cheese is turned over several times during the day, and a little salt always placed upon the exposed part immediately after turning.

The churn was of the common barrel form, worked by means of a wheel, and the cheese press of a rude construction, being a large stone at the end of a lever. This dairy was in the lower part of the house, and here appeared to be the dwelling place of the whole family. The sleeping rooms were on the uppermost floor of all, and must have been very dark and unpleasant. After seeing the dairy, the damsel who was our conductress, informed us that the best rooms were yet to be seen by going up a ladder of four or five steps from the dairy. Before ascending this, she took off her shoes, and presented a mat for us to wipe ours. The rooms that we now entered were very handsomely furnished—the chests, drawers, the bureaus, &c., being of mahogany, and the shelves loaded as usual with useless china. Every portion of the floor that was visible, was polished with frequent scrubbing. Unless on occasion of a death or marriage, or some very unusual festivity, this part of the house was never open. The family lived in dark, unpleasant rooms, and only entered there once a week for the purpose of a thorough cleaning. The same system prevails in a great majority of Dutch farm-houses, and to a great extent even in the cities.

Some of the dairies of North Holland do not make cheese, but send their milk to Amsterdam on the canals—a boat calls for the full vessels in the morning, and leaves them empty on its return. It is carried about the streets by women, ordinarily in pails.

I must now, for the second time, close a series of letters from abroad, and do so with the hope that I may, at some future time, be able to send you similar series and contributions, referring to the agricultural peculiarities and improvements in different sections of our own country. I am, gentlemen, yours truly,

JOHN P. NORTON.

RURAL NOTICES ABROAD.—By IK. MARVEL.

NO. VIII.

A FRENCH VILLAGE.—There are no white wood houses, with green blinds, and cherry trees in front, and capacious wood sheds behind, belonging to a French village. It is indeed as unlike as possible to an American's idea of a village.

You have been riding, perhaps, or walking along a straight, Macadamized thoroughfare, very broad, and very hard, and in summer very dusty, and you have noticed with your American eye, at first that there are no fences between you and the waving fields of grain, or the fluttering leaved vineyards. Again, you have noticed that there was no apparent division in the property, and that the laborers, men and women, were working quietly—save an occasional laugh or song—one party among the grain, and another among the vines. Further, you have noticed occasional rows of trees planted beside the route, and sometimes, though rarely, a thicket of tall thickly growing wood; then you see what seems the strangely fashioned tower of a church, appearing in advance among the trees upon the right, or the left, and, as at home, you count it as a sign of an approaching village.

Presently, you reach a little white, low cottage, standing a dozen feet back from the road, with a slatternly kept yard before it, in which, perhaps, are two or three plum trees, or possibly a pear. In the garden

at the side are two or three more. The house is of rough stone covered with mortar, and the floor is covered with baked tiles, glossed over with grease, and wax, and filth. A rough made spade or plow, will perhaps be lying at the door—a child or two will look over the fence at you, and a short woman, with very thick, stout sabots,* will clump to the door, (which she nearly fills up,) and look curiously after you, shading her eyes with her hand. The garden is carelessly cultivated, and filled only with the more necessary vegetables. It is separated by a rude paling from the vineyard or grass-land behind.

The road now becomes paved, perhaps with round stones, and a paling or hedge of singular growth skirts the way until you come to other cottages, similar in general construction to the first. Some more pretending one will have a dried bough hanging over the door, which means that you can there get wine and lodging, and possibly, if not fastidious, a bed. If the village and inn be quite small, you will be received in the kitchen, which is the most pretending room in the house, furnished with a large fire-place, with its adjuncts of kettles and fry-pans, and a very large oak table with oaken benches. The village innkeeper or *aubergiste*, has not unfrequently a considerable patch of land to cultivate, and his garden-spot will be of larger size than that of the other villagers; but I never could see that his profession as *aubergiste* helped his profession as farmer or gardener. If they have better wine, they do not make it, and if they have better cheese, it is the cheese of Gruyere.

If the village be large, the inn will have a huge white stable, with an announcement over its door, in staring capitals, of the number of horses that can be kept. Great piles of manure will be smoking about its door in the sun, and none of those economic arrangements for saving and securing fertilizing material can be observed, which prevail throughout Belgium and Holland.

The inn, as well as all the houses around it, which make up the central part of the village, will be immediately upon the street. The little shops of such clumsy working artisans as belong to the village, will be a part of, or united to their houses; and their handicraft will make so lazy and lifeless a show, that it will add little to the bustle of the place. Perhaps twenty little cottages, such as I have first described, with the *auberge* and the church, group together to form the village; then comes a straggling house or two—possibly of somewhat better appearance, as belonging to the priest or village grocer, then will recur again the unfenced vineyards and grain fields.

The cows, which supply the villagers with their milk and butter, which last is, in many of the interior districts, villainously poor, are fed beside the way, watched by knitting girls, or bare-legged boys, and at the milking are possibly treated with a cabbage leaf or two from the little garden, and housed under a rough shed attached to the cottage.

These villagers have all their steady and unvarying employments. Perhaps one is a *roulage*† man, making his monthly trips through the village, from Paris, on to the borders of Switzerland, and supplying his family with such proportion of his small profits as is

not needed to supply his evening's pipe, and his daily bottle of wine.

Another, perhaps occupying the very humblest of the cottages, is a stone-breaker upon the highway, and spends year upon year, on his little cross-legged stool, beating pebbles for the Mc-Adamized road, and chatting with such foot-goers as pass by his way. Another is a soldier, enrolled in *la grande armée*, and living now at Paris, and the next year at Strasburg, and the next, fighting the Algerines.

There are the day-laborers, going miles to their harvesting, or their work in the vineyards, and carrying with them their coarse wheaten loaf, a bit of cheese, and canteen of wine, to make gay their hour's nooning under the poplars. In the grape-time, of course there will be added the richest fruit at will, which is eaten without stint, and, so far as I could observe (and my own experience confirms the observation,) with entire harmlessness. The country shop, if any exist in the village, will be of that unpretending and mixed sort which may be found in the smaller towns of New England—with this marked exception, however, that since the French peasantry have the good sense to dress in a way becoming their labor and style, you will see in the shops none of the second-rate, flimsy finery of cities; their *fête* day dresses are of clean homespun, and they make show of their success in labor or in life, not by wearing gaudy ribbons, and assuming ill-fitting fashions—but by uniform cheerfulness and urbanity.

The young men of the village have no *El Dorado* of 'the West' to lure them away; they are stimulated by no freely circulating, every day newspapers; an improvement in agriculture or in trade is slow to reach them. Half, perhaps, are taken away into the army; the ambitious ones of the residue, burn for some ignoble employment at the great capital; or succeed a father to the conduct of a *roulage* convoy; or push their influence to secure a place as postillion in a neighboring town; or as driver to a diligence team—hoping that some day, and it is the height of their ambition, they may arrive at the dignity of conductor, and wear their braided jackets and tasselled caps—in which event their occasional visits to their native village is an important event, and they will carry away the hearts of all the pretty maidens of the country.

Thus the French village, without any elements of progress, passes a stationary and sleepy existence. It is the same this year that it was thirty years ago—the same church, the same rude image of the virgin—the same *auberge*—changed only in having a new bough shaking at the door, and perhaps a new crane to fry its omelettes, and to boil the pot. The same notions prevail of sowing and of harvest—and the same ignorant carelessness, and the same innocent gaieties.

Though this little picture of a country village in other lands, is not strictly agricultural, I have thought American village-livers would be glad to see and enjoy the fortunate contrast which their position will enable them to make, and so, take new courage for exertion, and wear new modesty in their successes.

A SOLDIER'S OPINION OF WAR.—SIR HENRY SMITH, "the hero of Aliwal," in a speech at the late meeting of the Royal Agricultural Society, in comparing the pursuit of agriculture with the business of war, said: "Let me impress upon you that, though my profession be one of arms, yet it is an accursed profession, and is of utility alone when it is used to promote the legitimate object of war—a lasting peace." He also assured the audience that if they had viewed "the accursed horrors of war," as he had done, they would have more occasion to be contented with their vocation.

* A heavy wooden shoe, cut out of beech or linden wood, pointed at the toe, and with high, small heels, worn almost universally by the peasantry of France. They of course make a prodigious clattering, and you frequently, on the pavement of a town, turn about, thinking a horse is at your heels, at the sound only of some active country beauty.

† The *roulage* is a cart with two wheels, drawn by from two to eight horses, which transports heavy freight from town to town, and even from country to country, doing the same duty which, before the days of railroads, used to be performed by our heavy Pennsylvania wagons.

THE FARMER'S NOTE BOOK.

EXPERIMENTS IN FARMING.—I have been engaged eight years farming on the farm* I now occupy, and in consequence of the feeble state of my wife's health am compelled to abandon the business. I thought a few brief remarks upon my experience would perhaps be acceptable to you and the readers of the Cultivator. I have been an attentive reader of its columns for the last ten years, and a close observer of such things as would profit me in my business. I can assure any person who wishes to make farming profitable, that he will find the Cultivator to be a publication that he should by all means have as a book of reference. He can have it bound, or if he pleases stitch it in paste-board, as I have done, and he will not only find it pleasant but profitable to read the different opinions upon any one point, and then apply common sense, and he will most invariably come to the right conclusion. I have a farm so situated in point of location, convenience and soil, as to make it just the desideratum for what is termed mixed husbandry, and this I find the most profitable way of farming.

I believe the way to use manure the most profitably is to spread it broadcast from the cart in a rotten state, and harrow it in, in the fall of the year. Sow timothy seed after the last harrowing, and clover seed on the same ground about the first of March following. The manure, if it is but lightly dressed, insures not only the grain but also the grass seed, and by well covering the ground, gives noxious weeds no chance to spring up. As my barnyard is near a tannery, where I can have any quantity of spent bark for the drawing, (and three men will draw fifty loads a day,) I have for the last three years drawn from fifty to eighty loads, and bedded my yards from four to eight inches thick, directly after drawing out the manure in the fall. I am then sure to have some straw to throw over; on this I yard my cows and winter my stock. The surface of the yard descends to one corner, where I have a concave that will hold a number of hogsheads, and here I put the bark the thickest; here also stands my hog-pen, the manure of which is shoved into the concave. After I pen my hogs to fatten in the fall, I wheel about a barrow load of spent bark to each hog every week, as dry as I can get it from the heap that I have laying near by, and throw it in the pen. The hogs work this out nearly sufficient, and at the same time mix it with the manure. The tan bark in both cases acts as an absorbent, and the liquids destroy or neutralize the acid that make the bark deleterious to vegetation. I draw it out only in the fall upon the ground I intend for winter grain, and put it in heaps of six or seven to the load. It then smells and looks much as it did when it was first drawn; but after laying a few days exposed to the atmosphere, it turns black and smells like stable manure, and is equal to it in value. This experience has proved to a demonstration.

I have about two acres of extra quality of muck—from this I drew a quantity on a heap about two years ago. About the 15th of last May I dropped my corn, and with a cart and oxen drew fifty loads from this heap, covering each hill with a middle-sized shovel full of muck—three men taking ten rows at a time. I left two rows in the middle of the field without muck, the soil being the same. The ground was quite dry, and in want of rain at the time, and in thirty-six hours

after it was planted the chit began to appear, and the difference in the corn throughout the season was so perceptible, that any stranger could pick out the rows by walking over the field. This last experiment was suggested by another person; but the former, if I am not the first person that has proved its value, I have at least done so without any knowledge of the fact.

I find that keeping cows for the purpose of making butter (especially on a farm so well calculated as mine to afford pasture, and where churning is done by water power) is of the most profitable, and at the same time it enables me to feed up all the coarse fodder that would have been of little value to me otherwise, and to make manure. I was able every year by keeping three sows and one boar over winter, to sell from \$110 to \$120 worth of pork, or pigs, which were weaned when six weeks old, and the sows had another litter by the last week in August, which were weaned as before; and by good management I could fatten the sows before winter. Without milk this could not be done, and with the addition of boiled apples and some pumpkins or potatoes, it can be done without feeding much grain. In fact, I am fully persuaded that apples are of more value to make pork of than they are to make cider, as far as dollars are concerned; and when we take into consideration the infinite mischief that is produced by cider drinking, the difference is enormous.

The average produce of my cows has been about \$30 each per annum, for eight years past. Up to this time this year, I have sold \$110 worth of butter from eight cows and two yearling heifers, besides the amount consumed in my family of seven persons.

Having the whole charge of my dairy in the month of June last, (my wife was confined to her bed,) I kept the milk of six cows and the two heifers separate for two milkings, and churned the whole of the milk of each one separate, and the following was the result:—

Cows.	Weight of milk.	Pounds of butter.
No. 1.....	41 5 oz. gave.....	1 6 oz.
" 2.....	43 8 " ".....	1 8 "
" 3.....	35 6 " ".....	1 6 "
" 4.....	35 8 " ".....	1 6 "
" 5.....	33 14 " ".....	1 5 "
" 6.....	34 2 " ".....	1 4 "
Heifer 1.....	27 6 " ".....	0 15 "
" 2.....	19 7 " ".....	0 14 "

It has shown quite a difference in the quality of the milk, and it further shows that it is not in the size or beauty of the cow as to the quantity or quality. No 1 is the poorest and most ill-looking cow I own. She was an ill-looking calf, and she always remained so as she grew up, and after I commenced milking her, I supposed her to be the best cow I had, which this experiment has proved to be a fact; * although she gave a little less milk and butter than number 2, I have every reason to believe that the accident that happened to her a few weeks previous, (having badly sprained her knee joint,) which compelled me to keep her up, has caused all that or more difference, for she was very discontented in her confinement. As to her continuing

* This farm is for sale—see advertisement in Cultivator for last month, page 294.

[* It should not be supposed from this, that *ill looks* in a cow are indicative of good dairy qualities. It is not denied that a cow remarkable for her ugliness *may* be a good milker, but this is rather an exception than the rule. Most persons who have had experience with cows, will admit that their value is generally denoted by certain points, and these are the points, or "lines of beauty," for a milch cow. Those of our readers who are desirous of knowing what we consider these points, are referred to the Cultivator for 1846, pages 9 and 10.—Eps.]

in milk when other cows shrink, she is before every cow I ever owned. She always has been thin in flesh, and is so now. No. 2 is a little brindle cow—the smallest cow of the lot; and No. 2, heifer, from which was churned fourteen ounces of butter from nineteen pounds seven ounces of milk, was not two years old (and is very small) when she came in, and her calf was so large that I lost it, and came near losing her; but the experiment has proved that she gives the richest milk of all the cows.

It has not been as much trouble as I anticipated to try this last experiment, and no person that intends to make butter making the most profitable to him, should neglect to try it once a year. It would show him the exact value of each cow, and the satisfaction will well repay the trouble. *ELI WESTFALL. Rhinebeck, Dutchess county. Sept., 1847.*

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FOOT PATHS ALONGSIDE OF HIGHWAYS.—Public roads are for the use and accommodation of all the people, and there is no reason why they ought not to be improved for the benefit of those who go on foot, as well as those who ride in carriages.

I have long thought of this improvement, and a late notice in the *Cultivator*, that foot-paths along highways are common in England, induces this notice.

With a neighbor, who had an interest in making a good path to the village, in common with myself, we made a foot path of about half a mile, at so little expense and to such manifest advantage, that I am induced to give an account of it for the benefit of all whom it may concern.

A space about five or six feet wide, on the side of the road, is made the foundation. A few furrows are plowed alongside, of perhaps an equal width. The earth from these furrows is thrown by a shovel upon the paths, equalizing the surface as near as may be, and the edge protected by sodding, thus forming a raised path for foot passengers.

Where no extraordinary difficulties exist, such as filling up low ground, or removing stones, this kind of path can be made for less than one cent a foot in length, (I have had 400 feet graded for \$3,) and occasional gravelling when necessary, can be done at leisure times when it may be said to cost nothing. The advantages are hardly to be estimated, especially at night, and as the cost is but about \$50 per mile, a neighborhood can readily do all that is wanted, each working on his own part. Walking is the natural and best exercise of the body, and everything ought to be done to promote it. P.

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IMPROVED CULTIVATOR.—In looking over the August number of your paper, in an article on the implement called the *Cultivator*, I notice the following remark: "We have rarely seen an implement of this kind constructed exactly to our liking." A similar remark is frequently made by others. Besides the objections which you have named, I have noticed one serious one in the circumstance of their leaving an open track or furrow next to the row of corn, which, on hill-sides, in case of heavy rains, conducts the water, and causes it to gully near, and sometimes directly under the hills. To obviate the above-named objection, there has been a cultivator constructed in these parts, the present season, on a plan entirely the reverse of the ordinary form, being widest in front, and terminating in a single tooth behind, so that the last track or furrow, which is the one left open, is at or near the centre, between the rows. It consists of a gang of shovel-plows, some 4½ inches wide and nine inches long, attached to posts or standards of wood by screw-bolts. The first and second pairs of teeth are attached to cross-bars passing through a beam like a plow-beam, the front

one (say) two feet long, the next one foot, and the last tooth is attached to the hind end of the beam. The teeth or shoes are pointed at both ends, so that when one point is worn out it can be easily turned and will then wear as much longer. The implement is light, (weighing less than fifty pounds,) is of easy draught, and at the same time appears to be of sufficient strength, and performs the work far superior to anything else of the kind that has ever come under my observation. It can be made to run shallow, just skimming the surface near the rows, and at the same time stirring the soil in the centre as deep as if it were plowed; or it will work equally deep next to the rows, if necessary. It is certain death on sorrel and all kinds of summer grass and weeds, and pulverizes the soil to perfection. A further description can not well be given without a drawing. I forgot to mention that this implement never clogs or chokes with weeds or coarse manure so much but that a small effort will clean it. *WARDWELL. Elba, Mich., Aug. 27, 1847.*

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"BREAK THE CRUST."—Reading in the June number of the *Cultivator* an article with this title, brought to my recollection a circumstance that I was partially acquainted with. Many years ago, when I lived in Connecticut, a man from among my acquaintance removed from that state into Vermont. He was a farmer that understood his business and attended to it. Some years after, I made a tour into Vermont, and the first call that I made after crossing the river out of New Hampshire, was at his house. He had got a fine farm, a good proportion of which was intervale on the Connecticut. There was a field of three acres, on the intervale before the door, which, he said, when he came to make his purchase, had on it a very stunted growth of corn. To use his own words, "It was but little bigger than pennyroyal. He asked the owner the reason of the corn making such a miserable appearance. He said he did not know. But, said my friend, "I knew." He finally bought the farm, and the next season undertook to renovate that field solely by plowing. He plowed every opportunity through the season, taking care to plow only when the dew was on, or immediately after a rain. He went over it a number of times in the season, and sowed it with wheat in the fall; and when he came to harvest and thresh it, he had 154½ bushels, averaging 51½ to the acre. *J. W. Tunbridge, Vt., 1847.*

GOOD YIELD OF POTATOES.—Mr. Henry Hall, an Englishman, rented last year one acre and one rood of ground, one and a half miles from Zanesville, Ohio, on one acre of which he raised more than 400 bushels of superior Pink-eye and Mercer potatoes,—the result, not of high manuring, but of systematic and thorough cultivation. The spade was the only implement used in preparing the ground. The tubers were planted early, in drills, and very close, and the ground kept perfectly clean. *J. TOWNSEND.*

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BEARING OF TREES IN EVEN AND ODD YEARS.—The editor of the *Boston Cultivator* believes that fruit trees bear most in "even" years. He has lately made a journey to the western part of Maine, and he states that the crop of apples in that section is very light and of poor quality. He adds—"In the same region we saw good crops last year—confirming our views as to having good crops of apples in even years if the season be favorable, and light crops in odd years, even in good seasons." We suppose 1847 is as "odd" a year in the vicinity of Albany as in the western part of Maine, yet the crop of apples here is greater this season than for many years—almost every tree being loaded to the utmost.

THE ORCHARD AND THE GARDEN

RIPENING WINTER PEARS.

More difficulty has been found in preserving winter pears, and bringing them to a fine eating condition, than some other winter fruit. Some good cultivators have been so unsuccessful, as to question the propriety of attempting to raise winter pears at all. Others, again, have succeeded finely. This difficulty has resulted from the rapidity with which winter pears become dry, or evaporate through the skin, a difficulty which scarcely exists in the apple. Hence, if the room in which they are kept, is too dry, they soon wither; if too moist, they decay. The latter more frequently proves the ruin of winter pears. Hence, it usually happens, that success does not depend on skill in raising, but on the accident of possessing a cellar or store-room, of just such a degree of humidity as to avoid these two extremes. And, hence, the attention should be directed to remedy this difficulty, by removing the causes of too much moisture in one case, and dryness in the other.

This can only be done by direct experiment, using the specimens as hygrometers, and lessening or increasing the moisture of the room, as may be needed.

No person has perhaps given more attention to the ripening of winter pears than Saml. Walker, of Roxbury, Mass., and at different times he has given the results of his experience to the public. In an article from his pen published some months ago in the *Horticulturist*, he recommends two apartments—one a *keeping*, and the other a *ripening* room to be fitted up for the purpose. "The floor of the keeping room should be of brick or stone; the ripening room floor to be of wood, if you please, covered with a carpet, and to render it comfortable and suitable for the purpose, a fire-place to heat the apartment, when necessary." The cultivator of limited means, will make a portion or apartment of his cellar answer for the former, and a cupboard or set of shelves in, or adjoining the common living room, the latter.

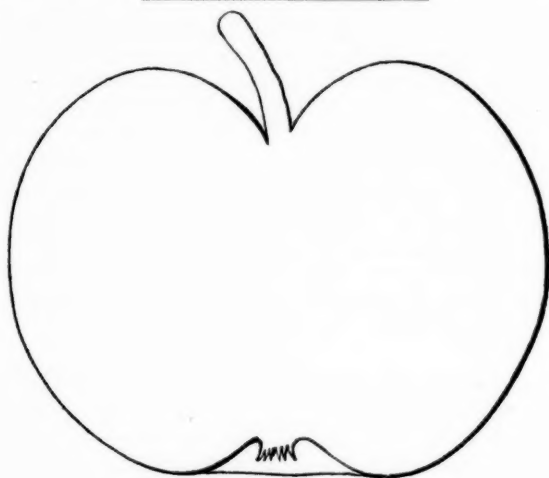
It is well known, that not only the quality, but the period of maturity, in late autumn and winter pears, depends greatly on the treatment they receive. The *Doyenne*, for instance, which so far north as Albany and Rochester, assumes, in ordinary seasons, the character of an early winter fruit, may be ripened late in autumn in a warm room, or kept till mid-winter in one at a temperature a little above freezing. Success in ripening pears depends, in most cases, on keeping the fruit at a low temperature till near the usual time of maturity, when a few days in a moderately warm room will perfect the process. In the article of S. Walker, already alluded to, are the following excellent practical remarks, which cannot fail to be valuable to most pear raisers:

"All pears which come to maturity in the autumn and winter, should not be gathered till the fruit has attained its full growth, (about the middle of October at Boston.) This should be done by hand, some fine day when the fruit is perfectly dry, keeping each kind separate, and labeling the same with its name, the day it was gathered, and the season of its ripening. [Barrels, boxes, baskets, or bins, are recommended, as the quantity of each kind may require.] The fruit being thus placed in the keeping room, care should be taken to keep the room cool, dark and dry; shutters and curtains should be provided for the windows, to close them up during the day, if the weather is bright, dry, and

hot; at night, when the weather will permit, the thermometer not ranging below 30 degrees, the windows may be all, or in part, left open for fresh air. They should be closed early in the morning to keep in the cool night air. If mould or mildew should be seen upon the fruit, it should be removed with a dry cloth or silk handkerchief; if about the floor or other part of the building, strew a small quantity of air-slacked lime about the room.

"As the period of ripening approaches, all the varieties should be examined; the fruit that shows signs of its soon coming to maturity, should be carefully packed up with layers of cotton batting, in tight boxes, and in no case should the box be opened, or the fruit unnecessarily exposed to the air. From the time fruit is gathered, until it is *fully* ripe, it, should, in my opinion, be kept in close, dry vessels. The pears thus boxed up should be placed in the ripening room, keeping the room at a temperature of from 55 to 75 degrees of heat."

The same article, in speaking of the different treatment which different varieties of the pear require, states that the *Chaumontel* will ripen when exposed to great changes of temperature; even if left upon the ground, covered with snow, and frozen, it is not injured, if the frost is gradually abstracted, and it is matured afterwards in the keeping and ripening room, as already directed. The *Easter Burre* and *Burre Rans* are supposed to be able to endure the same treatment; but the *Vicar of Winkfield* should never be exposed to frost, and needs many days in the warmest part of the ripening room to bring it to full maturity. T.



The Early Joe Apple—Fig. 76.

THE EARLY JOE APPLE.—From four years acquaintance with this new and eminently productive summer variety, we have deliberately come to the conclusion, that when in perfect eating order, it is decidedly the most perfect and agreeable table apple we ever had the pleasure of touching. But to be thus excellent, the fruit must be of fresh well ripened specimens, and not those plucked immature, and ripened in the house, or on a railway voyage. A gentleman of veracity, who has long had a bearing tree, assures us that he has seen a man sit down by a basket of this delicious fruit, and taking up one after another, actually eat half a peck before he was aware of what he had done. Indeed, to hazard a mere conjecture, this must have been the identical apple which our friend Downing saw in the hand of Pomona, in his famous dream, that being the

only sort which she claimed as superior to the Newtown pippin, which we are sure is excelled by the Early Joe!

This apple is only medium in size, and sometimes inclining to small, flat; sometimes slightly approaching flattish-conical, smooth and regular; light yellow on the shaded side, covered with numerous short broken stripes, which pass into a nearly uniform shade of deep red next the sun, and interspersed with conspicuous white specks. Stalk three quarters of an inch long, in a rather shallow and wide cavity, calyx in a small, even basin. Flesh very fine in texture, exceedingly tender, slightly breaking, very juicy, with a mild, sub-acid, rich, and faultless flavor. Ripens during the last half of the 8th month, (Aug.) The growth of the tree is slow, the young shoots dark color, and while it is a profuse bearer, the fruit is always fair. The figure is an exact impression from a fair-sized specimen on a heavily loaded tree. T.

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HORTICULTURAL EXHIBITION.—The first annual exhibition of the Albany and Rensselaer Horticultural Society took place at the Geological Rooms, Albany, on Saturday, the 11th of September. The display of Fruits, Flowers and Vegetables, was in all respects highly creditable, and even beyond what the most sanguine had anticipated for the first effort. Of *Plums*—a fruit for which this neighborhood is somewhat celebrated—there was a fine show, though it would probably have been better had the exhibition taken place at an earlier day, as many varieties were gone. There were *twenty-six* kinds presented by that veteran cultivator Mr. ISAAC DENNISTON—fourteen of which were seedlings produced in his own grounds. Ten of these are yet unnamed, though they are nearly all of superior quality. Mr. BRIGGS, of Schaghticoke, had also a large number of varieties of fine appearance. Of *Peaches*, the show was, for this latitude, unusually good. A sample, presented by Mr. E. P. PRENTICE, of uncommon size and beautiful appearance, believed to be "Bergen's Yellow," attracted much attention. There were some fine seedling peaches presented by Mr. J. K. PAIGE. The "Astor" and "Akin's seedling," by Messrs. WILSON, THORBURN & TELLER, were fine. Of *Pears*, there were fine specimens of the Bartlett and other autumn varieties, and many later kinds. WILSON, THORBURN & TELLER presented a sample of the "Sterling pear," a fruit of beautiful appearance, and which we are told is of superior excellence. It is said to have originated near Buffalo.

Dr. H. WENDELL, Mr. J. RATHBONE, Dr. MARCH, Mr. BENSON, of Albany; Messrs. VAIL, WARREN and others, of Troy; Messrs. DOUW and KIRTLAND, of Greenbush, showed fine specimens of various fruits.

The "floral designs" of Messrs. DINGWALL, WILSON, MENAND, NEWCOMB and others, were splendid, and much admired.

The success of this Society, for the first season of its operations, has been very encouraging, and will, we trust, stimulate to increased exertions for the future.

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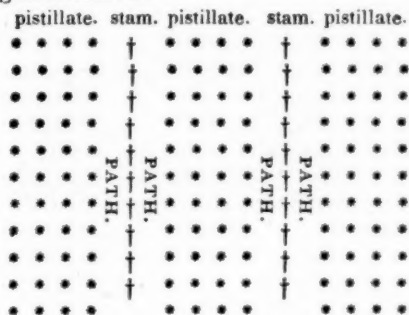
SALT FOR PLUM TREES.—The request in your Aug. number for information on this subject, induces me to state that last fall I used half a bushel of fine salt round about fifty plum trees at Hudson—varying the quantities according to the size and apparent want of each tree. Not a single tree was injured, but on the contrary they all appear thrifty, and are now loaded with fruit. I also salted three trees in my yard in this city, dividing about a pint of salt between the three. These two are remarkably healthy, and one in particular, which has been gradually failing in consequence of filling in the earth around it. I trimmed and washed

the body and limbs with brine, in addition to salting the roots, and the result is a most vigorous growth of young wood. From this experiment I am induced to believe that a discreet and moderate use of salt will be found of decided benefit to plum trees. THOMAS W. OLCOTT. Albany, Aug. 23, 1847.

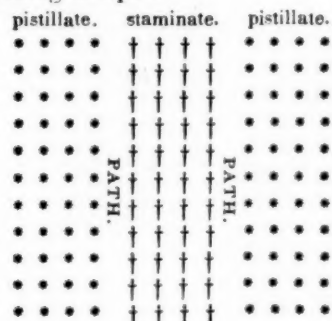
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HOW TO PLANT STRAWBERRIES.—In the last volume of this Journal, we gave a plan for planting strawberry beds so that the smallest number of staminate plants might be introduced into a bed of pistillates, to fertilize them. But a serious objection exists to this mode, the staminate without great care and constant watching, soon intermixing, and in some cases over-running the pistillates.

To obviate this difficulty, the Horticulturist proposes the following mode of distribution, where the stars represent pistillates, and the daggers staminate. A path between them, prevents the runners from crossing and becoming intermixed:



By this mode, however, a portion of the ground is lost by being devoted to paths, every pistillate bed having two—an item of some consequence in towns where garden ground is scant. However superior pistillates have proved in Ohio for productiveness, there are some fine staminate, as Large Early Scarlet, Ross Phoenix, and others, which farther north, and with good garden culture, have been found quite prolific. Some of the latter, also, are *earlier* than most pistillates. Hence many cultivators are unwilling to do without them. We would propose, in such cases, that instead of adopting the preceding plan, the following be chosen, where entire beds of staminate and pistillates are placed alternately, with a single path between each. If the staminate are of the Large Early Scarlet, and the pistillates are Hovey's Seedling, the former will not only abundantly fertilize the latter, but will of themselves furnish an abundant crop of very early, high flavored, and good-sized fruit, nearly two weeks before Hovey's Seedling is ripe:



.....

TO KEEP OFF ROSE-BUGS FROM GRAPE-VINES.—DAVID COLE, of Watervliet, informs us that he has found air-slacked lime scattered on grape-vines, when the dew is on, is an effectual preventive of the attack of the rose-bug. It will even make the insects leave the vines, if they have already attacked them. Perhaps plaster and ashes would answer the same purpose as lime.

YOUATT'S WORK ON THE FIG.

As to the original breeds of England, Mr. Y. observes that they are "rapidly losing all traces of individuality under the varied systems of crossing to which they are subjected." In relation to the "OLD ENGLISH HOG," it is observed—"Where individuals of the pure old breed are met with, they will be found long in

and are far better nurses than those of the smaller breeds. They are, however, now nearly extinct, disappearing before the present rage for diminishing the size of the hog, and rendering his flesh more delicate; points which, however desirable to a certain extent, may be carried too far."

A summary description is given of the breeds which at the present time are deemed most valuable. Among these are mentioned the Lincolnshire, Leicestershire, Essex, Neapolitan, Suffolk, Norfolk, Cheshire, Berkshire, Hampshire, Sussex, and Chinese.

Strictly speaking, none of these breeds can at the present time be considered pure or distinct, having in most cases been produced by various crossings. For instance, the present **BERKSHIRE BREED**, fig. 72, appears to be the result of several mixtures with the *old* Berkshire, which was a hog of nearly the largest class. Mr. YOUATT states that "hogs of the pure original breed have been known to attain to an immense size, and weigh as much as 100 and 120 stone, of eight pounds the stone,"—equal to 800 or 860 lbs. He describes one which is said to have "measured seven feet seven inches from the tip of his snout to the root of his tail, and seven

feet ten inches in girth round the centre; five feet round the neck, ten inches round the thinnest part of the hind leg, and two feet across the widest part of the back. He stood three feet nine inches high."

But the breed is not now of an enormous size; "their ordinary weight," says Mr. Y., "averages from 12 to 15 score, and some will at two years old weigh 20 score"—that is 240 to 300, or in the latter case 400 pounds. With a view of lessening the size of the *old* Berkshires, improving the flavor of their flesh, and rendering it more delicate, they have been crossed with the Chinese, Siamese, and Neapolitan swine; and the produce has a greater aptitude to fatten, but are less hardy than the old stock.

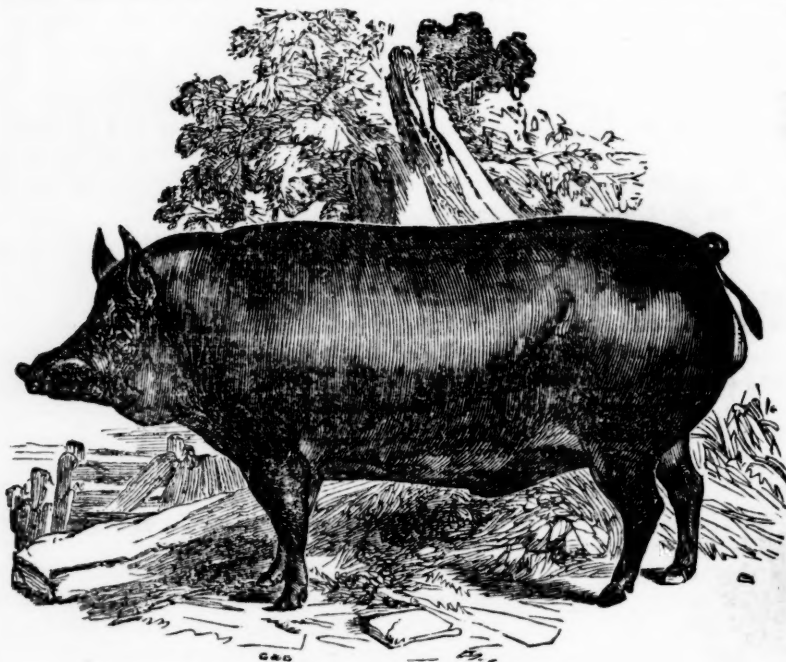
The **ESSEX BREED**, fig. 73, is one of the most highly esteemed in England. They are said to be indebted for their improvement to various crosses, especially with the Neapolitan and Berkshire breeds. Those most esteemed are entirely black. The late Lord WESTERN is believed to have been the great improver of the Essex pigs. It is this family of swine which has attained such celebrity of late years in the hands of W. F. HOBBS, Esq., of Marks Hall, Essex. There appears to be a family of the Sussex swine which are similar, if not identical with these, and are said to have been improved by the Western family.

Mr. STEVENS, author of "*The Book of the Farm*," remarks—"As to the breed which shows the great-



Berkshire Sow.—Fig. 72.

limb, narrow in the back, which is somewhat curved, low in the shoulders, and large in bone; in a word, uniting all those characteristics which are now deemed most objectionable, and totally devoid of any approach to symmetry. The form is uncouth, and the face long and almost hidden by the pendulous ears. They never-



Lord Western's Essex Breed.—Fig. 73.

theless have their good qualities, though aptitude to fatten does not rank among the number, for they consume proportionally a much larger quantity of food than they repay; but the females produce large litters,

est disposition to fatten, together with a due proportion of lean, I never saw one to equal that which was originated by Lord Western, in Essex. I received a present of a young boar and sow of that breed from Lord Panmure, and had the breed for ten years; and such was the high condition constantly maintained by the pigs on what they could pick up at the steading, besides the feed of turneps supplied them daily, that one could be killed at any time for the table as a porkling. They were exceedingly gentle, indisposed to travel far, not very prolific, however; but could attain, if kept on, to a great weight; and so compact in form, and small of bone and offal, that they invariably yielded a greater weight of pork than was judged of before being slaughtered. The offal was small, and more delicious ham was never cured than they afforded.

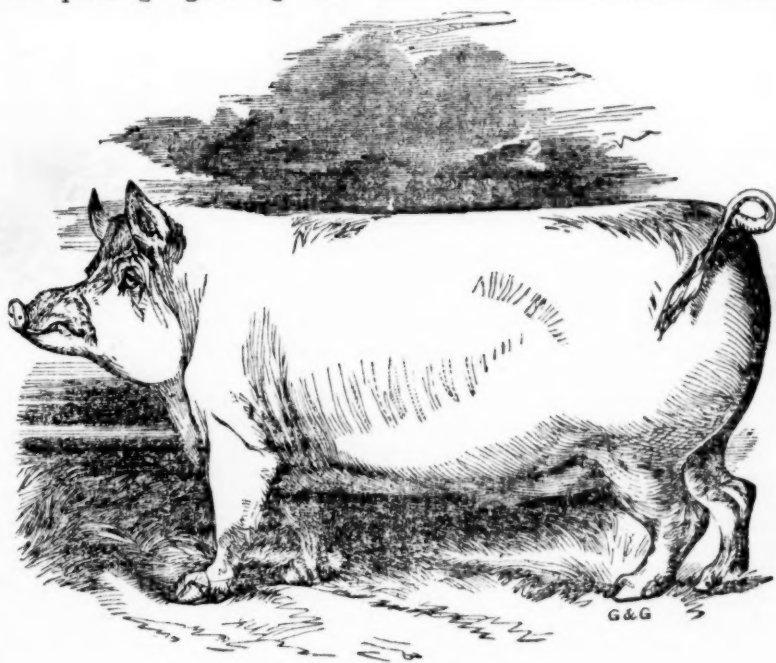
The improved **SUFFOLK BREED**, fig. 74, is spoken of by Mr. YOUATT in very favorable terms. He says: "On the whole, there are few better breeds to be found in the kingdom, perhaps, than the improved Suffolk pigs; they are well-formed, compact, short-legged, hardy animals, equal in point of value to the best of the Essex, and superior in constitution, and consequently better adapted for general keep, and especially for the cottager. The greater part of the pigs at Prince Albert's farm, near Windsor, are of the improved Suffolk breed—that is to say, the Suffolk crossed with Berkshire and Chinese. They are small in size, with round bulky bodies, short legs, small heads, and fat cheeks. Those arising from the Berkshire and Suffolk are not so well shaped as those derived from the Chinese and Suffolk, being coarser, longer legged, and more prominent about the hips. Many of the improved Suffolks breed well, at a year or fifteen months old, weigh from 12 to 15 or 16 score, [250 to 300 or 320 pounds;] at this age they make fine bacon hogs. The sucking pigs and porkers are also very delicate and delicious."

This is the variety which has been introduced into this country by WM. STICKNEY, Esq., of Boston, whose fine pigs have frequently been noticed in the public journals.

CHINESE SWINE, fig. 75.—The various Asiatic races of swine, have been greatly instrumental in improving the English breeds. The Siamese, as well as several varieties of the Chinese, were long since resorted to for the purpose of lessening the bone and increasing the fattening tendency of the European races. Mr. YOUATT observes that there are two distinct varieties of the Chinese—"the white and the black; both," he says, "fatten readily, but from their diminutive size attain no great weight. They are small in limb, round in body, short in the head, wide in the cheek, and high in the chine; covered with very fine bristles growing from an exceedingly thin skin, and not peculiarly symmetrical, for when fat the head is so buried in the neck that little more than the tip of the snout is visible. The pure Chinese hog is too delicate and susceptible of cold ever to become a really profitable animal in this country; it is

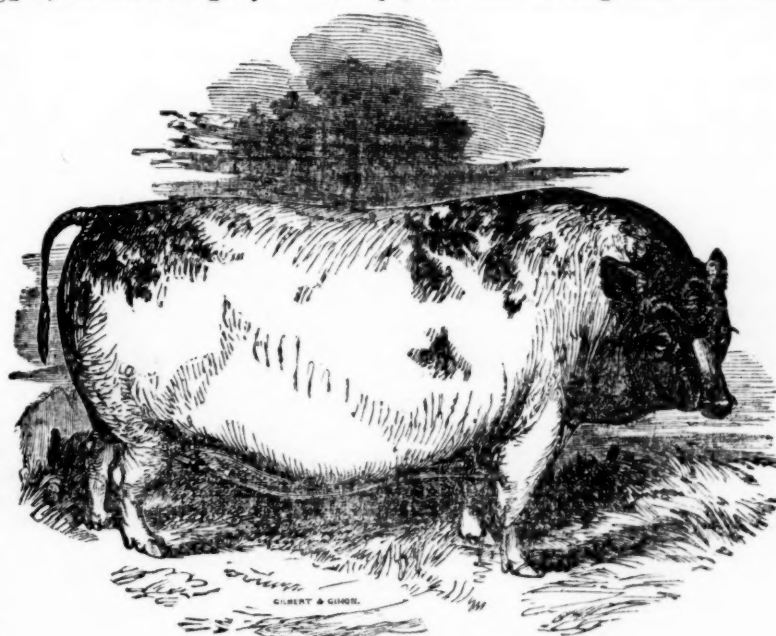
difficult to rear, and the sows are not good nurses; but one or two judicious crosses have in a manner neutralized it. "This breed will fatten readily and on a comparatively small quantity of food; and the flesh is exceedingly delicate, but does not make good bacon, and is often too fat and oily to be generally esteemed as pork."

The best of the **LINCOLNSHIRE BREED** appear to be good hogs. Mr. YOUATT thus describes them:—"The



Improved Suffolk Boar.—Fig. 74.

true Lincolnshire pigs are white, with long, straight bodies, round carcasses, fine skins, and few bristles; the heads are well formed and of moderate size, and the ears erect, pointing somewhat forward, and curling slightly at the tips; the hair is long and fine, but



The Chinese Breed.—Fig. 75.

seanty. This breed was formerly considered superior to any but the Berkshire in point of form and value, they being easily fattened, and the flesh being tender and of fine flavor; with care they will reach 45 or 50 stone of 14 lbs. to the stone, [700 lbs.;] and many at a year and a half will weigh 25 or 30 stone, [450 to 520 lbs.] They certainly do not attain to their maturity as early as some of the smaller breeds, but are notwithstanding this, profitable animals, and good,

sound, handsome stock. A cross between the Lincoln and Chinese pigs is productive of an animal presenting a great tendency to fatten, and a small eater.

"The old breed of this country, are long-legged, nar-

row-backed, ungainly animals, with thick skins covered with short, thick hair; the head is large, the forehead wide, and the ears set far apart. They are far from being profitable animals, being enormous eaters and fattening but poorly."

GOV. WRIGHT'S ADDRESS,*

At the Exhibition of the New-York State Ag. Society, Sept. 16, 1847.

Mr. President, and Gentlemen of the State Agricultural Society:—Had it been my purpose to entertain you with a eulogium upon the great interest confided to your care, the Agriculture of the State, I should find myself forestalled by the exhibition which surrounds us, and which has pronounced that eulogy to the eye, much more forcibly, impressively, eloquently, than I could command language to pronounce it to the ear of this assembly.

Had I mistakenly proposed to address to you a discourse upon agricultural production, this exhibition would have driven me from my purpose, by the conviction that I am a backward and scarcely initiated scholar, standing in the presence of masters, with the least instructed and experienced of whom, it would be my duty to change places.

The agriculture of our state, far as it yet is from maturity and perfection, has already become an art, a science, a profession, in which he who would instruct must be first himself instructed far beyond the advancement of him who now addresses you.

The pervading character of this great and vital interest, however; its intimate connection with the wants, comforts, and interests of every man in every employment and calling in life; and its controlling relations to the commerce, manufactures, substantial independence, and general health and prosperity of our whole people, present abundant subjects for contemplation upon occasions like this, without attempting to explore the depths, or to define the principles of a science so profound, and, to the uninitiated, so difficult as is that of agriculture.

Agricultural production is the sub-stratum of the whole superstructure; the great element which spreads the sail and impels the car of commerce, and moves the hands and turns the machinery of manufacture. The earth is the common mother of all, in whatever employment engaged, and the fruits gathered from its bosom, are alike the indispensable nutriment and support of all. The productions of its surface and the treasures of its mines, are the material upon which the labor of the agriculturist, the merchant, and the manufacturer, are alike bestowed, and are the prize for which all alike toil.

The active stimulus which urges all forward, excites industry, awakens ingenuity, and brings out invention, is the prospect or the hope of a market for the productions of their labor. The farmer produces to sell; the merchant purchases to sell; and the manufacturer fabricates to sell. Self-consumption of their respective goods, although an indispensable necessity of life, is a mere incident in the mind impelled to acquisition. To gain that which is not produced or acquired, by the sale of that which is possessed, is the great struggle of laboring man.

Agricultural production is the first in order, the strongest in necessity, and the highest in usefulness, in this whole system of acquisition. The other branches stand upon it, are sustained by it, and without it could not exist. Still it has been almost uniformly, as the whole history of our state and country will show, the most neglected. Apprenticeship, education, a specific course of systematic instruction, has been, time out of

mind, considered an indispensable pre-requisite to a creditable or successful engagement in commercial or mechanical pursuits; while to know how to wield the axe, to hold the plow, and to swing the scythe, has been deemed sufficient to entitle the possessor of that knowledge to the first place, and the highest wages in agricultural employment.

A simple principle of production and of trade, always practically applied to manufactures and commerce, that the best and cheapest article will command the market, and prove the most profitable to the producer and the seller, because most beneficial to the buyer and consumer, is but beginning to receive its application to agriculture. The merchant, who, from a more extensive acquaintance with his occupation, a more attentive observation of the markets, better adapted means, and a more careful application of sound judgment, untiring energy and prudent industry, can buy the best and sell the cheapest, has always been seen to be the earliest and surest to accomplish the great object of his class, an independence for himself. So the mechanic, who, from a more thorough instruction in the principles and handicraft of his trade, or a more intense application of mind and judgment with labor, can improve the articles he fabricates, or the machinery and modes of their manufacture, and can thus produce the best and sell the cheapest, has always been seen to reach the same advantage over his competitors, with equal readiness and certainty; and that these results should follow these means and efforts, has been considered natural and unavoidable.

Still the agriculturist has been content to follow in the beaten track, to pursue the course his fathers have ever pursued, and to depend on the earth, the seasons, good fortune, and providence, for a crop, indulging the hope that high prices may compensate for diminished quantity or inferior quality. It has scarcely occurred to him that the study of the principles of his profession had anything to do with his success as a farmer, or that what he had demanded from his soils should be considered in connection with what he is to do for them, and what he is about to ask them to perform. He has almost overlooked the vital fact, that his lands, like his patient teams, require to be fed to enable them to perform well, and especially has he neglected to consider that there is a like connection between the quantity and quality of the food they are to receive, and the service to be required from them. Ready, almost always, to the extent of their ability, to make advances for the purchase of more lands, how few of our farmers, in the comparison, are willing to make the necessary outlays for the profitable improvement of the land they have?

These and kindred subjects, are beginning to occupy the minds of our farmers, and the debt they owe to this society for its efforts to awaken their attention to these important facts, and to supply useful and practical information in regard to them, is gradually receiving a just appreciation, as the assemblage which surrounds us, and the exhibitions upon this ground, most gratifyingly prove.

Many of our agriculturists are now vigorously commencing the study of their soils, the adaptation of their manures to the soil and the crop, the natures of the plants they cultivate, the food they require, and the best methods of administering that food to produce health

* Most of our readers are already apprised of the sudden demise of Gov. WRIGHT, at his residence in Canton, on the 27th of August. This address was completed the evening before his death, and was read at the Exhibition, by the Hon. JOHN A. DIX.

and vigor and fruit; and they are becoming convinced that to understand how to plow and sow and reap, is not the whole education of a farmer; but that it is quite as important to know what land is prepared for the plow, and what seed it will bring to a harvest worthy of the labors of the sickle. Experience is steadily proving that, by a due attention to these considerations, a better article, doubled in quantity, may be produced from the same acre of ground, with a small proportionate increase of labor and expense, and that the farmer who pursues this improved system of agriculture, can, like the merchant and mechanic referred to, enter the market with a better production, at a cheaper price, than his less enterprising competitor.

This change in the agriculture of our state and country, opens to the mind reflections of the most cheering character. If carried out to its legitimate results, it promises a competition among our farmers, not to obtain the highest prices for inferior productions, but to produce the most, the best, and the cheapest of the necessities of human life. It promises agricultural prosperity, with cheap and good bread, furnished in abundance to all who will eat within the rule prescribed to fallen man, in the sacred volume of the Divine law.

Steady resolution and persevering energy, are requisite to carry forward these improvements to that degree of perfection dictated alike by interest and by duty; and the stimulus of a steady and remunerating market will rouse that resolution and nerve that energy. Without this encouragement in prospect, few will persevere in making improvements which require close and constant mental application, as well as severe physical labor. Agriculture will never be healthfully or profitably prosecuted by him whose controlling object is his own consumption. The hope of gain is the motive power to human industry, and is as necessary to the farmer as to the merchant or manufacturer. All who labor are equally stimulated by the prospect of a market which is to remunerate them for their toil, and without this hope neither mental activity, nor physical energy, will characterize their exertions. True it is that the farmers of our country, as a class, calculate less closely the profits of their labor and capital, than men engaged in most other pursuits, and are content with lower rates of gain. The most of them own their farms, their stocks and farming implements, unencumbered by debt. Their business gives but an annual return. They live frugally, labor patiently and faithfully, and at the close of the year, its expenses are paid from its proceeds, the balance remaining being accounted the profits of the year. Although a moderate sum, it produces contentment, without a computation of the rate per cent. upon the capital invested, or the wages it will pay to the proprietor and the members of his family. The result is an advance in the great object of human labor, and, if not rapid, it is safe and certain. It is a surplus beyond the expenses of living, to be added to the estate, and may be repeated in each revolving year.

If, however, this surplus is left upon the hands of the farmer, in his own products, for which there is no market, his energies are paralyzed, his spirits sink, and he scarcely feels that the year has added to his gains. He sees little encouragement in toiling on, to cultivate beyond his wants, productions which will not sell; and the chances are, that his farm is neglected, his husbandry becomes bad, and his gains in fact cease.

To continue a progressive state of improvement in agriculture, then, and to give energy and prosperity to this great and vital branch of human industry, a healthful and stable market becomes indispensable, and no object should more carefully occupy the attention of the farmers of the United States.

Deeply impressed with the conviction of this truth, benevolent minds have cherished the idea that a domestic market, to be influenced only by our own national policy, would be so far preferable, in stability and certainty, to the open market of the commercial world, as to have persuaded themselves that a sufficient market for our agricultural products is thus attainable. It is not designed to discuss the soundness of this theory, where it can be reduced to practice; but only to inquire

whether the state of this country, the condition of its society, and the tendency and inclination of its population, as to their industrial pursuits, are such, at the present time, or can be expected to be such for generations yet to come, as to render it possible to consume within the country the surplus of the productions of our agriculture. The theory of an exclusively domestic market for this great domestic interest, is certainly a very beautiful one, as a theory, and can scarcely fail to strike the mind favorably upon a first impression. Still, examination has produced differences of opinion between statesmen of equal intelligence and patriotism, as to its influences upon the happiness and prosperity of a country and its population. Any examination of this question would lead to a discussion properly considered political, if not partisan, and all such discussions it is my settled purpose to avoid, as inappropriate to the place and the occasion.

I simply propose to inquire as to a fact, which must control the application of theories and principles of political economy touching this point, to our country and its agricultural population, without raising any question as to the wisdom of the one, or the soundness of the other. Is the consumption of this country equal to its agricultural production, or can it become so within any calculable period of years? How is the fact? May I not inquire without giving offence, or transcending the limits I have prescribed for myself in the discussion? Can a fair examination, scrupulously confined to this point, take a political bearing, or disturb a political feeling? It is certainly not my design to wound the feelings of any member of the society, or of any citizen of the country; and I have convinced myself that I may make this inquiry, and express the conclusions of my own mind as to the result, without doing either. If I shall prove to be in error, it will be an error as to the fact inquired after, and not as to the soundness of the principle in political economy dependent upon the fact for its application, because as to the soundness of the principle, I attempt no discussion and offer no opinion. It will be an error as to the applicability of a theory to our country, and not as to the wisdom or policy of the theory itself, because of the soundness, or unsoundness of the theory, when it can be practically applied, I studiously refrain from any expression, as inappropriate here. With the indulgence of the society, I will inquire as to the fact.

Our country is very wide and very new. It embraces every variety of climate and soil most favorable to agricultural pursuits. It produces already almost every agricultural staple, and the most important are the ordinary productions of extensive sections of the country, and are now sent to the markets in great abundance.

Yet our agriculture is in its infancy almost everywhere, and at its maturity nowhere. It is believed to be entirely safe to assume that there is not one single agricultural county in the whole Union, filled up in an agricultural sense—not one such county which has not yet land to be brought into cultivation, and much more land, the cultivation of which is to be materially improved, before it can be considered as having reached the measure of its capacity for production. If this be true of the best cultivated agricultural county in the Union, how vast is the proportion of those counties which have entire townships, and of the states, which have not merely counties, but entire districts, yet wholly unpeopled, and unreclaimed from the wilderness state?

When to this broad area of the agricultural field of our country, we add our immense territories, organized and unorganized, who can compute the agricultural capacities of the United States, or fix a limit to the period when our surplus agricultural productions will increase with increasing years and population? Compare the census of 1830 and 1840 with the map of the Union, and witness the increase of population in the new states, which are almost exclusively agricultural, and who can doubt the strong and resistless inclination of our people to this pursuit?

Connect with these considerations of extent of country, diversity of soils, varieties of climate, and partial and imperfect cultivation, the present agricultural prospects

of this country. Witness the rapid advances of the last dozen years in the character of our cultivation, the quality and quantity of our productions from a given breadth of land, and the improvements in all the implements by which the labor of the farmer is assisted and applied. Mark the vast change in the current of educated mind of the country, in respect to this pursuit; the awakened attention to its high respectability as a profession, to its safety from hazards, to its healthfulness to mind and body, and to its productiveness. Listen to the calls for information, for education, upon agricultural subjects, and to the demands that this education shall constitute a department in the great and all pervading system of our common school education, a subject at this moment receiving the especial attention, and being pressed forward by the renewed energies of this society. Behold the numbers of professors, honored with the highest testimonials of learning conferred in our country, devoting their lives to geological and chemical researches calculated to evolve the laws of nature connected with agricultural production. Go into our colleges and institutions of learning, and count the young men toiling industriously for their diplomas, to qualify themselves to become practical and successful farmers, already convinced that equally with the clerical, the legal, and the medical professions, that of agriculture requires a thorough and systematic education, and its successful practice the exercise of an active mind devoted to diligent study.

Apply these bright, and brightening prospects to the almost boundless agricultural field of our country, with its varied and salubrious climate, its fresh and unbroken soils, its cheap lands and fee simple titles, and who can hope, if he would, to turn the inclinations of our people from this fair field of labor and of pleasure? Here the toil which secures a certain independence is sweetened by the constant and constantly varying exhibitions of nature in her most lovely forms, and cheered by the most benignant manifestations of the wonderful power and goodness of Nature's God. Cultivated by the resolute hands and enlightened minds of freemen, owners of the soil, properly educated, as farmers, under a wise and just administration of a system of liberal public instruction, should and will be, and aided by the researches of geology and chemistry, who can calculate the extent of the harvests to be gathered from this vast field of wisely directed human industry?

The present surplus of bread-stuffs of this country, could not have been presented in a more distinct and interesting aspect than during the present year. A famine in Europe, as wide-spread as it has been devastating and terrible, has made its demands upon American supplies, not simply to the extent of the ability of the suffering to purchase food, but in superadded appeals to American sympathy in favor of the destitute and starving. Every call upon our markets has been fully met, and the heart of Europe has been filled with warm and grateful responses to the benevolence of our country, and of our countrymen, and yet the avenues of commerce are filled with the productions of American agriculture. Surely the consumption of this country is not now equal to its agricultural production.

If such is our surplus in the present limited extent and imperfect condition of our agriculture, can we hope that an exclusive domestic market is possible, to furnish a demand for its mature abundance? In this view of this great and growing interest, can we see a limit to the period, when the United States will present, in the commercial markets of the world, large surpluses of all the varieties of bread-stuffs, of beef, pork, butter, cheese, cotton, tobacco, and rice, beyond the consumption of our own country? And who, with the experience of the last few years before him, can doubt that the time is now at hand, when the two great staples of wool and hemp will be added to the list of our exportations?

These considerations, and others of a kindred character, which time will not permit me to detail, seem to me, with unfeigned deference, to prove that the agriculture of the United States, for an indefinite period yet to come, must continue to yield annual supplies of our principal staples, far beyond any possible demand of the

domestic market, and must therefore remain, as it now is and has ever been, an exporting interest. As such, it must have a direct concern in the foreign trade and commerce of the country, and in all the regulations of our own and of foreign governments which affect either, equal to its interest in a stable and adequate market.

If this conclusion be sound, then our farmers must surrender the idea of a domestic market to furnish the demand, and measure the value of their productions, and must prepare themselves to meet the competition of the commercial world in the markets of the commercial world, in the sale of the fruits of their labor. The marts of commerce must be their market, and the demand and supply which meet in those marts must govern their prices. The demand for home consumption, as an element in that market, must directly and deeply interest them, and should be carefully cultivated and encouraged, while all the other elements acting with it, and constituting together the demand of the market, should be studied with equal care, and, so far as may be in their power, and consistent with other and paramount duties, should be cherished with equal care.

Does any one believe, that for generations yet to come, the agricultural operations of the United States are to be circumscribed within narrower comparative limits than the present; or that the agricultural productions of the country are to bear a less ratio to our population and consumption than they now do? I cannot suppose that any citizen, who has given his attention to the considerations which have been suggested, finds himself able to adopt either of these opinions. On the contrary, I think a fair examination must satisfy every mind that our agricultural surplus, for an indefinite future period, must increase much more rapidly than our population and the demand for domestic consumption. This I believe would be true without the efforts of associations, such as this, to improve our agriculture. The condition of the country, and the inclination and preference of our population for agricultural pursuits, would render this result unavoidable; and if this be so, when the impetus given to agricultural production by the improvements of the day; the individual and associated efforts constantly making to push forward these improvements with an accelerated movement; the mass of educated mind turned to scientific researches in aid of agricultural labor; the dawning of a systematic and universal agricultural education; and the immense bodies of cheap, and fresh, and fertile lands, which invite the application of an improved agriculture, are added to the account, who can measure the extent or duration of our agricultural surplus, or doubt the soundness of the conclusion, that the export trade must exercise a great influence upon the market for the agricultural productions of the country for a long series of years to come?

Such is the conclusion to which my mind is forced, from an examination of this subject, in its domestic aspect simply; but there is another now presented of vast magnitude and engrossing interest, and demanding alike from the citizen and the statesman of this republic, the most careful consideration. All will at once understand me as referring to the changes and promises of change in the policy of the principal commercial nations of the world, touching their trade in the productions of agriculture. By a single step, which was nothing less than commercial revolution, Great Britain practically made the change as to her trade; and subsequent events have clothed with the appearance of almost super-human sagacity, the wisdom which thus prepared that country to meet the visitation of famine, which has so soon followed, without the additional evil of trampling down the systems of law to minister to the all-controlling necessities of hunger. Changes similar in character, and measurably equal in extent, though in many cases temporary in duration, have been adopted by several other European governments, under circumstances which render it very doubtful how soon, if ever, a return will be made to the former policy of a close trade in the necessities of human life.

New markets of vast extent and incalculable value, have thus been opened for our agricultural surplus, the

durability and steadiness of which it is impossible yet to measure with certainty. It is in our power to say, however, that a great body of provocations to counter-vailing restrictive commercial regulations, is now removed, in some instances permanently, and in others temporarily in form; and it would seem to be the part of wisdom, for the agriculture of this country, by furnishing these markets to the extent of the demand, with the best articles, at the fairest prices, to show to those countries, and their respective governments, that reciprocal commercial regulations, if they offer no other and higher attractions, present to their people a safeguard against starvation.

Such is the connection, now, between our agriculture and the export trade and foreign market, and these relations are to be extended and strengthened, rather than circumscribed and weakened, by our agricultural advances. The consumption of the country is far short of its production, and cannot become equal to it within any calculable period. On the contrary, the excess of production is to increase with the increase of population and settlement, and the improvements in agriculture and agricultural education. These appear to me to be facts, arising from the condition of our country, and the tastes and inclinations of our people, fixed beyond the power of change, and to which theories and principles of political economy must be conformed, to be made practically applicable to us.

The American farmer, then, while carefully studying, as he should not fail to do, the necessities, the wants and the tastes of all classes of consumers of his productions in his own country, must not limit his researches for a market within those narrow bounds. He must extend his observations along the avenues of commerce, as far as the commerce of his country extends, or can be extended, and instruct himself as to the necessities, and wants and tastes of the consumers of agricultural productions in other countries. He must observe attentively the course of trade, and the causes calculated to exert a favorable or adverse influence upon it; watch closely the commercial policy of other countries, and guard vigilantly that of his own; accommodate his productions, as far as may be, to the probable demands upon the market, and understand how to prepare them for the particular market for which they are designed. Next to the production of the best article at the cheapest price, its presentation in the market in the best order and most inviting condition, is important to secure to the farmer a ready and remunerating market.

So long as our agriculture shall continue to be an exporting interest, these considerations, as second only to the science of production itself, will demand the careful attention and study of our farmers, and in any well digested system of agricultural education, its connection with manufactures and the mechanic arts, with commerce, with the commercial policy of our own and other countries, and with the domestic and foreign markets, should hold a prominent place. A thorough and continued education in these collateral, but highly necessary branches of knowledge to the farmer, will prove extensively useful to the American citizen, beyond their application to the production and sale of the fruits of his labor. They will qualify him the more safely and intelligently to discharge the duties of a freeman; and, if called by his fellow citizens to do so, the more beneficially to serve his state and country in legislative and other public trusts.

I hope I may offer another opinion in this connection, without giving offence, or trespassing upon the proprieties of the place and occasion. It is that this education in the just and true connection between the agricultural, the commercial, and the manufacturing interests of our country, equally and impartially disseminated among the classes of citizens attached to each of these great branches of labor, would effectually put an end to the jealousies too frequently excited; demonstrating to every mind, so educated, that, so far from either being in any degree the natural antagonist of the other, they are all parts of one great and naturally harmonious system of human industry, of which a fair encouragement to any part is a benefit to all; and that all invidious and par-

tial encouragement to any part, at the expense of any other part, will prove to be an injury to all. The education proposed will do all that can be done to mark the true line between natural and healthful encouragement to either interest, and an undue attempt to advance any one, at the expense of the united system, merely producing an unnatural and artificial relation and action, which cannot fail to work disease and injury.

The labors of this society, and of kindred associations, have done much to inform the minds of our farmers in these collateral branches of knowledge useful to them, and much remains to be done. The science of production claims the first place, and is a wide field, as yet so imperfectly cultivated as to afford little time for collateral labors. To secure a stable and healthful market, and to learn how to retain and improve it, also opens an extensive field for the mental labors and energies of the farmer. Between these objects the relation is intimate and the dependence mutual. The production makes the market, and the market sustains the production. The prospect of a market stimulates to activity in the field of production, and the fruits of that activity urge the mind to make the prospect real. Success in both contributes to the health and vigor and prosperity of agriculture, and of that prosperity commerce and manufactures cannot fail largely to partake.

All are willing to promote the cause of agriculture in our State and country. Most are ready to lend an active co-operation, and all are cheerful to see accomplished any valuable improvement in this great branch of productive industry. The difficulty hitherto has been in adopting any general plan to effect this desirable object. Hence, most usually, when the public mind has been awakened to the subject, arbitrary, and in many cases visionary experiments have been introduced, based upon no philosophical investigation of cause and effect, but upon some accidental trial, by a single individual, of some novel mode of culture, which, under the circumstances attending the experiment, has met with success. This single experiment, without an enquiry into, or a knowledge of the cause which, in the given case, has secured the successful result, is at once recommended as an infallible rule of husbandry. The publication and dissemination of detached experiments of this character, for a long period, constituted the most material additions to the stock of literary information connected with agriculture, supplied to our farmers; while many of the experiments were too intricate and complicated to be reduced to practice with any certainty of accuracy, and others were so expensive that the most perfect success would not warrant the outlay.— Unsuccessful attempts to follow the directions given for making these experiments, brought what came to be denominated "book farming," into great disrepute with the industrious, frugal and successful farmers of the country, and excited a jealousy of, and a prejudice against this description of information upon agricultural subjects, which it has cost years of patient and unceasing effort in any measure to allay, and which are not yet removed.

In the mean time geological research, heretofore principally confined to investigations into the mineral kingdom proper, has been extended to its legitimate office, and has brought within its examinations the formation of the various soils, and their minute constituent parts. Chemistry has commenced where geology closed, and by a careful analysis of these constituents of the various soils, of the principal agricultural products, and of the usual manures, is laboring to establish upon philosophical principles, the true relations between the soil and the manure to be applied, and between both and the crop to be planted and produced. It is seeking out, with rapid success, the appropriate food of the various vegetables cultivated by the farmer, the soils and manures in which the food for each is found, and the way in which it may be most successfully administered. So with the food of the domestic animals, and the most economical manner of feeding it.

These investigations are the reverse of the former system of arbitrary experiments. There a result was made to justify the arbitrary means adopted to produce

it. Here causes are ascertained, and, being so ascertained, are relied upon to produce their natural effect, which effect is the result sought.

The importance of this great subject is effectually arousing the attention of the literary and scientific men of the country, and the success already experienced is drawing to these researches minds qualified for the labor, and energies equal to its rapid advancement. The progress made is bringing together the unsettled mind of the country, and producing the very general impression that the time has arrived when the foundations of a systematic, practical agricultural education should be laid, and the superstructure commenced.

It is universally conceded that agriculture has shared but lightly in the fostering care and government patronage which have been liberally extended to commerce and manufactures, nor is it believed that additional public expenditure is necessary to enable the State to do all that can reasonably be required of it, to accomplish this great object. Our educational funds are rich, and the colleges, academies and common schools of the State share liberally in the distributions from them, while a Normal School, for the education of teachers, instituted at the seat of government, is also mainly supported from these funds. These institutions present the organization, through which, perhaps better than through any independent channel, this instruction can be universally disseminated among the agricultural population of the State. The annual additions to the school district libraries may be made with reference to this branch of education, and thus place within the reach of all the discoveries as they progress, and the rules of husbandry deduced from them, as they shall be settled and given to the public from the pens of the competent professors engaged in pursuing the researches.

This society, and like associations, may, through appropriate committees, their corresponding secretaries, public spirited commercial men, and otherwise, collect and embody in their transactions, facts and information respecting the markets, foreign and domestic; the present and probable supply of agricultural products; the mode and manner of presenting the principal productions in the various markets in the most acceptable form; the state and prospects of trade at home and abroad, and the changes present and prospective in the commercial policy of our own and other countries, with the probable influences upon the agricultural market. The commercial and agricultural press will doubtless come powerfully to the aid of the associations, in all efforts of this character, and having these great objects in view.

In this way the foundation may be gradually laid, and the materials collected for the commencement of those agricultural studies, which time and application, with the constant evidence of their utility in practice, would ripen into a system, to be engrafted upon the course of regular studies pursued in the colleges, academies and common schools, and made a branch of the studies of the male classes in the Normal School, placed under the superintendence of an instructor selected for the purpose, and qualified to prepare his classes for teaching the studies in the common schools of the State.

Thus a generation of farmers would soon come forward, well educated in the great and essential principles of agricultural production; in the true relations existing between agriculture, commerce and manufactures, and in the adaptation and preparation of their products for the agricultural markets. Such farmers, with the continued aid of the schools in which they were taught, would become the best manual labor instructors for their successors.

The passage of time reminds me that I am extending these remarks beyond the proprieties of the occasion and the patience of my audience. A single reflection shall close them.

However confidently the opinion may be entertained that other circumstances and relations might present a prospect for the agriculture of our state and country more stable, independent and flattering, certain it is,

that the future here opened is full of cheering promise. We see in it the strongest possible security for our beloved country, through an indefinite period, against the scourge of famine. Our varied soil and climate and agriculture double this security, as the disease and failure of any one crop will not, as a necessary consequence, reduce any class of our population to an exposure to death from hunger. We see also, in addition to feeding ourselves, that our surplus is almost, if not altogether, sufficient, if faithfully and prudently applied, even now to drive famine from the length and breadth of Europe. And that it is in our power, by faithful mental and physical application, soon to make it equal to the expulsion of hunger from the commercial world. We see that, dependent upon the commercial markets, our agriculture may bring upon our country a high degree of prosperity, and enable us, when extraordinary occasions shall call for its exercise, to practice a national benevolence as grateful to the hearts of the humane as to the wants of the destitute. And we see that by the wider diffusion and more secure establishment of a successful agriculture among our citizens, as a permanent employment, we are laying broader and deeper the foundations of our free institutions, the pride and glory of our country, and prized by its freemen as their richest earthly blessing; the history of all civil government, confirmed by the experience of this republic, furnishing demonstrative proof that a well educated, industrious, and independent yeomanry, are the safest repository of freedom and free institutions.

ANSWERS TO INQUIRIES.

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COAL ASHES FOR MANURE.—M., Allegany Co., Pa. So far as our observation goes, coal ashes are not a very valuable manure; we think they do, however, generally produce some benefit. On heavy soils, their mechanical effect is favorable in making the soil more open. Sometimes they contain iron and sulphur in so large quantities as to render their application injurious to vegetation. Mixing them with fresh lime or strong wood ashes, might in such cases be useful.

CIDER MILL—MACHINE FOR PARING FRUIT—DRY-HOUSE.—S., Lynchburgh, Va. Perhaps BOOTHE'S mill, for cut and description of which see *Cultivator*, vol. VII., p. 109, might answer your purpose. For a paring-machine see an article in our last number, page 289. For drying peaches, &c., Mr. THOS. BELLANGER, of Egg Harbor, New-Jersey, (according to the *Am. Farmers' Encyclopedia*,) has a small house provided with a stove, and drawers in the house lathed at their bottoms, with void intervals. "The peaches," it is said, "should be ripe, and cut in two, not peeled, and laid in a single layer on the laths, with their skins downwards, to save the juice. On shoving in the drawer they are soon dried by the hot air produced by the stove. In this way great quantities may successfully, in a single season, be prepared, with a very little expense, in the preparation of the building, and in fuel."

HYDRAULIC RAM.—Having noticed in the August *Cultivator*, some inquiries, made by E. H. Weeks, in relation to the durability and ability of our hydraulic ram, I answer—there need be no better situation for the well-performing of the ram, than 12 feet fall to 75 feet rise; one-sixth of the water used can be raised to that elevation. Logs are never used, because lead pipe is in all cases considered much cheaper. The sizes of the pipes used are these: For ordinary purposes, 1½ inch driving pipe, ¼ inch discharge; therefore, if logs can be bored so small and smooth as lead pipes are, they will answer the purpose, and not without. The rams are warranted to last, and operate as long as they are kept in order. FARNHAM & BROWN. No. 194½ Market-St., Philadelphia.

ANNUAL EXHIBITION OF THE N. Y. STATE AG. SOCIETY.

THE seventh exhibition of the New-York State Agricultural Society, took place at Saratoga, on the 14th, 15th, and 16th of September. The weather was fine, and the occasion drew together a very large crowd, though the numbers which entered the show-grounds were considerably less than on some previous occasions. The receipts, we believe, show a falling off of about \$700 from last year.

The site for the show was a good one—the enclosure was spacious, the buildings commodious, and all the arrangements very complete. In comparing the exhibition with former ones, it may be said that in most of the departments there was a decided deficiency. The show of Implements and Machinery was equal if not superior to that of any previous exhibition of the Society; the articles were numerous, and in general of a superior character. Of stock, the display of horses, including those from other states, was good; but in all other classes of animals, the show was far behind those which have preceded it. There was also a striking deficiency in the department of Dairy Products, Household and Domestic Manufactures, Vegetables, &c. Of Fruit, there was a large display of plums, but in other respects we thought this department by no means as full as usual. The Floral display may be said to have been fine, considering the lateness of the season. The ornamental arrangements and fixtures, for the show of fruits and flowers, which were executed under the direction of Dr. THOMPSON, of Aurora, were of the most perfect description, and elicited high praise.

It may be proper to remark that this exhibition ought not to be considered a fair indication of the agricultural or other products of the state of New-York; neither should its deficiencies be attributed to any lack of interest among the people generally, in those objects which it is the design of the Society to promote. The location was evidently unsuitable, on account of the inconvenience of reaching it with stock and heavy articles. We are confident that the spirit of emulation and desire for improvement was never so fully awakened and widely diffused as at the present time; and we are certain that under favorable circumstances, a manifestation highly creditable to the industrial resources of the state would have been made.

We submit the following brief notices of articles and animals exhibited:

IMPLEMENTS.—In this department we noticed a cultivator or scarifier of quite peculiar construction, presented by A. VAN BERGEN, Esq., which we have no doubt will prove a very useful implement in the cultivation of crops. The same gentleman also presented a Scotch cultivator, made wholly of wrought iron, which is capable of doing excellent work. He had also on the ground an improved subsoil plow, constructed especially with reference to its being used as a draining-plow on grass-lands, and which would make a considerable cavity in the soil, and yet leave the sward smooth and apparently undisturbed.

There were several wheel cultivators which appeared well calculated to work to advantage. We noticed particularly ODELL'S, IDE'S, and PATTERSON'S. The first of these, being jointed in the middle and having three wheels, we thought would operate very well.

HUSSEY'S "harvesting machine" was on the ground. It is every year getting more into favor. KETCHUM'S "mowing machine" was also exhibited. It is similar

to the "harvester," but is calculated to run closer to the ground, and does not require as much force.

SEYMOUR'S seed-sower, for broadcast work, seems to be a valuable article. For particulars in regard to it, see our remarks on Mr. DELAFIELD'S farming, in the July Cultivator.

There were several machines, to be worked by horse-power, for sowing different kinds of grains and seeds in drills. That patented and manufactured by S. & M. PENNOCK, Chester, Pa., appeared to be a useful and efficient machine. With two horses and one man, it is stated that from eight to fourteen acres of wheat can be sown per day, according to the character and condition of the ground. It will sow eight rows at a time about a foot apart, and by a simple contrivance, any row or number of rows can be stopped in an instant, and the foot which makes the furrow is raised from the ground. Thus, at pleasure, the number of rows and their distances apart are regulated. The machine may also be used to good advantage, with the sowing apparatus out of gear, as a cultivator, for working fallows, &c.

Smith's seed-planter, patented by H. W. SMITH, Lancaster, Pa., was presented by C. MASTEN, Penn Yan, N. Y. It is somewhat more simple in its construction than the one just mentioned, and appears likely to work well. It has been used for several years in Pennsylvania and Delaware, and is well recommended.

EMERY'S seed-planter, presented by Mr. H. L. EMERY, of Albany, has been in use the past season, and is evidently a valuable article. All these machines make a considerable saving of seed and a great saving of labor. We have no doubt that the best of them are destined to come into pretty general use in many parts of the country.

We noticed a "coopering machine" presented by WM. TRAPP, Ithaca, N. Y. It was a very curious machine, and turned out all kinds of barrels, kegs, tubs, &c., in the very best style. Some specimens of its work were shown which were thought superior to anything of the kind wrought in the common way.

Of horse-powers, we saw nothing but what has been before described.

There were several exhibitors of plows, some of which had large assortments. The AGRICULTURAL WAREHOUSE, Albany, A. B. ALLEN & Co., New-York, and STARBUCK & SON, Troy, sent large lots. MESSRS. BURRALL, of Geneva, DELANO, of Mottville, WARREN, of Troy, and MINER & HORTON, of Peekskill, also exhibited plows.

Of stoves, there was as usual, a numerous array, but we saw nothing peculiar among them.

DAIRY PRODUCTS.—The competition in butter and cheese was very limited, and we did not learn the names of many exhibitors. There were fine samples of butter from the dairies of O. C. CROCKER, Esq., of Broome county, Mr. B. A. HALL, of New Lebanon, and Mr. EVANS, of Oneida county.

VEGETABLES.—The vegetable show was decidedly meagre, and was besides, made up in part of articles which were brought on the ground for the purpose of feeding the stock.

FRUITS.—Of fruits, there were many fine plums, and some fine pears, peaches, and apples. Among the principal exhibitors, we noticed the names of Col. YOUNG, of Ballston, MESSRS. WENDELL, WILSON, THORBURN, and TELLER, of Albany, REAGLES, GROOT, and

others, of Schenectady, and ALLEN, of Oswego. Dr. UNDERHILL, of Croton Point, showed fine specimens of his grapes.

The articles in the "LADIES' HALL" were comparatively few in number—we cannot speak of the quality, as we did not make a particular examination.

LIVE STOCK.—Under this head the show of horses was decidedly best. There was a large number of stallions, and they were generally superior, but the mares, with few exceptions, were by no means of the best character.

The Morgan horses from New Hampshire and Vermont, made a splendid display, and elicited much admiration. There was Mr. WIER's "*Gifford Morgan*," twenty-one years old, with his noble family of stallions and mares, of various ages, (six in all.) Mr. HILL's "*Black-Hawk*," and some others. The old Gifford pranced in the van of the cavalcade with all the fire, action, and gaiety of a horse of six, instead of *twenty-one* years. He appeared conscious of his honorable position, and seemed to look with the pride of a patriarch on the bold "*Green Mountain Morgan*," and other fine animals which sprung from his loins. We understand that Mr. WIER refused an offer of two thousand dollars for this horse, from some gentlemen in the western part of this state.* The horses of Mr. HALE, of Massachusetts, and Mr. BLODGETT, of Vermont, attracted much attention.

Black-Hawk was prevented from being shown in his accustomed plight, on account of lameness caused by an accident, which occurred a few days previous to the show, but which, however, did not prevent his winning a match in trotting, which took place on the Saratoga course, on the 14th. We believe those who saw him, were convinced that he is a horse of uncommon power and great value.

Of horses within the state, we noticed among those for "all work," *Morse's Grey*, owned by Mr. MORSE, of Lansingburgh, and a young horse got by him, owned by Mr. MILLMAN, of Galesville, which took the first premium in this class. Many of the best horses of Rensselaer and Washington counties, were got by *Morse's Grey*. A pair of beautiful iron greys of this stock, presented by Mr. EYELESHIMER, of Washington county, were greatly admired.

Of the blood horses, *Tornado*, by American Eclipse, presented by Mr. E. LONG, of Cambridge, Washington county, N. Y., seemed to bear away the palm in the estimation of the spectators. He is a very fine horse—the best we have ever seen of Eclipse's get. *Mogadore*, presented by Mr. BUTLER, of Wayne county, was a well-made horse, in most parts, and showed excellent action. There were several pair of fine, showy matched horses. A pair owned by Mr. PATTEN, of Jefferson county, were much praised.

An interesting part of the horse-show, was the appearance of four beautiful and spirited little ponies, two of them ridden by sons of Mr. E. P. PRENTICE, of Albany, and the others by sons of Mr. J. H. PRENTICE, of Brooklyn. They galloped over the show ground in fine style,—the good horsemanship of the boys attracting as much attention as their miniature steeds.

CATTLE.—The Durhams were much less in number than usual, and generally not of so good a quality; yet there were a few of the very best character. The bull *Marius*, bred in England by the late Earl SPENCER, now owned by Messrs. BELL & MORRIS, of Westchester county, is a capital animal—taking him "all in all," we have never seen his superior. An offer of \$400 for this bull, by some Canadian gentlemen, was not accepted. Mr. VAIL's *Meteor*, which received the first premium in his class three years ago, was on the ground. He is an excellent bull. Of Durham cows,

Esterville, presented by Mr. PRENTICE, of Albany, and *Grace*, presented by Mr. A. STEVENS, of New-York, were entitled to rank among the very finest cows of this breed that we have ever seen. Mr. VAIL, of Troy, had a numerous delegation from his herd, among which we noticed the cow *Hilpa*, imported from the herd of Thomas Bates, Esq., of Yorkshire, England, and several promising young animals.

In the show of Herefords, we greatly missed the display formerly made by Messrs. CORNING & SOTHAM. Mr. GEORGE CLARK, of Otsego county, exhibited *Major*, a bull of excellent points and constitution, but too low in flesh to attract general attention. Mr. E. WELLS, of Johnstown, exhibited two fine cows and some young stock of this breed.

The Devons were out in considerable force and made a rich show. Mr. WASHBON of Butternuts, Otsego county, exhibited twenty full bloods and ten grades. They were driven to the show, a distance of over one hundred miles, in seven and a half days. There was some prime animals among them, and the general condition and appearance of all was first-rate. We understand that Mr. WASHBON made sale of several at very satisfactory prices. Messrs. NORFLEET and BATTLE, of North Carolina, and Mr. HAYES, President of the Montreal, Ag. Society, each purchased a beautiful pair of calves.

Some good Ayrshires were exhibited by Mr. PRENTICE and Mr. BEMENT. Mr. P.'s yearling bull of this breed, was not surpassed, if equalled, in good points, by any one of his age on the show grounds, including all breeds.

The falling off in the show of working oxen was very obvious. There were no competitors for the premiums offered for the best twenty yoke from any one county, or for the best ten yoke from any one town, and only seven competitors for the premium on the best pair. Mr. SHELDON, of Sennett, Cayuga county, showed two pair of excellent oxen, and a very fine pair of three-year-old steers. Mr. J. S. WADSWORTH, of Geneseo, showed several pair of very likely steers. Mr. JEROME, of New Hartford, Connecticut, showed a beautiful pair of three-fourths blood Devons, which were much admired. Had their behavior at a load, been equal to their appearance when not at work, they would have acquired great honor.

The fat cattle were not numerous. We noticed the "Tompkins county steers," so called, owned by WARREN HALSEY, of Ulysses. Their weight was said to be 6,500 pounds. We thought these equal to any fat cattle of their age, (five years,) that have ever been presented at our shows. In a tent adjoining the show-grounds was a "mammoth ox" from Chautauque county, six years old. Whether he would or not weigh, as his owner alleged, "over 4000 pounds;" he was a coarse ungainly monster, only fit to astonish those who are unacquainted with the proper points of cattle.

SHEEP.—The most attractive part of this division of the show was the two imported improved Oxfordshire rams, presented by Mr. CLAYTON B. REYBOLD, of Delaware city, Delaware. They are now three years old. About a year ago, one of them weighed 288 pounds, and the other 320 pounds. The highest one had 17 pounds of wool, and the largest one 12 pounds. Their great size is not more remarkable than their fine form, they are almost models of symmetry. The smaller one is, considered in all respects, the best long-wool sheep we ever saw. They were purchased in England of Mr. LARGE, the breeder, who has of late carried so many prizes on this description of sheep at the Royal Agricultural Society's shows.

Mr. S. C. SCOVILLE, of Salisbury, Connecticut, presented four imported Saxon rams and five imported ewes. They were selected in Germany with great care, by a

* He covered eighty mares the past season, at \$15 each.

competent judge. Several of them are certainly very superior animals, both as to shape of carcass and quality of wool. They will be an acquisition to the flocks of this country.

Mr. J. N. BLAKESLEE, of Watertown, Ct., had on the ground some specimens of his noted Merinos. His flock appears to sustain its reputation.

Mr. HINES, of Brandon, Vt., showed a yearling Merino, and five yearling ewes of the same stock, which were well shaped, remarkably similar in their appearance, and had good fleeces as to weight and quality.

Mr. CHAPMAN, of Middlebury, Vt., who was on his way to Kentucky with about one thousand Merinos, exhibited a few of his flock, among which we observed some very good rams.

The above were all we saw from out of the State.

The show of sheep within the State was by no means equal to former years—it was inferior both in numbers and general quality. Of Saxons and Merinos, Messrs. BLACKSLEE, of North Salem, Westchester county, WILCOX & HOLMES, of Saratoga, had a few good sheep. Of South Downs, Messrs. McINTYRE, of Albany, and WAKEMAN, of Herkimer, showed several ewes which were highly creditable to their flocks. The rams, with the exception of one or two, we thought hardly as good as those gentlemen have generally exhibited at our shows. Mr. McINTYRE's cross-bred South Down and Cotswold fat sheep, were first rate.

There was one pen of very fair Leicester sheep, but we did not succeed in finding the name of the owner.

The show of swine was the most inferior we ever saw at any agricultural exhibition. We did not see one first-rate hog, and excepting Mr. IRELAND's Spanish boar, so called, it would have puzzled us to pick out a good one.

The poultry were but a trifling show. Mr. HENRY VAIL, of Troy, showed some very good Dorking fowls. There was a coop of very pretty white fowls presented by J. A. BRACKETT, of Saratoga. Messrs. MESIER, of Dutchess county, presented two pair of their Chinese geese. This handsome variety has been exhibited and noticed at former shows.

The plowing match took place near the show ground on the third day. The ground had but a thin sward, and was altogether too light, to afford a fair trial of plows. Many plows will make fair work in loose sandy land, that would be nearly useless on compact soils. The number of competitors was twelve. The plowing was for the most part such as might not be considered objectionable for such a soil, but we must say that we noticed but one or two lands that could be considered suitable examples for general plowing. The land marked No. 8, plowed with a Scotch plow, was done handsomely. The furrows were straight, uniform in thickness, level at the bottom, and laid in such a manner that the harrow would operate on them to the best advantage—not thrown over to a dead level, but the corners left highest. Most of the plowing was decidedly too wide in the furrow for common soils.

There was an example of double plowing, given by Mr. BRONSON, which in many cases might be adapted advantageously. The mode consists in first plowing off the turf by a furrow about two inches in thickness, and then by a simple alteration of the draught, by moving the chain upwards on the elevis, the same plow is run in the same furrow to the depth of six or seven inches, throwing up the soil and leaving it very light and friable—in excellent condition for crops.

The attendance at the fair of gentlemen from abroad was unusually large, and it was a matter of regret that the show did not come nearer to their expectations. Among the company were Ex-Presidents VAN BUREN and TYLER, Gov. YOUNG, of New York, Judge BAKER, of Louisiana, Hon. Mr. McKAY, of North Carolina,

Col. ALLSTON, of South Carolina, Hon. Mr. JONES, and Mr. BOLLING, of Virginia, Col. CAPRON, of Maryland, Maj. REYBOLD, of Delaware, Prof. HARE, Mr. WITHERELL, and others of Pennsylvania, Mr. NEWBOULD, of New Jersey, ex-Governor HILL, of New Hampshire, Hon. H. L. ELLSWORTH, of Indiana, Hon. Messrs. PAPINEAU, WATTS, and HAYES of Canada, besides a numerous delegation of intelligent farmers from the New England States.

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At 12 o'clock on Thursday, a large and imposing audience assembled to listen to the address prepared by Gov. WRIGHT, which, according to the announcement, was to be read by the Hon. JOHN A. DIX. The stage erected for the purpose under large tent in the centre of the grounds, was occupied by the officers of the Society, the Ladies composing the Committee upon household productions, the Governor, State Officers, and such distinguished strangers as were present, among whom were Ex-Presidents VAN BUREN and TYLER, Gov. HILL, of New Hampshire, and other gentlemen from various sections of the Union.

After an impressive and solemn address to the Throne of Grace, by the Rev. Mr. CHESTER, the President of the Society introduced Gen. Dix, who prefaced the reading of Gov. WRIGHT's Address with the following remarks:—

Mr. President and Gentlemen of the Society—I have come here, at your request, to perform a melancholy duty—to read to you and to this assembly, the Annual Address prepared for the occasion by SILAS WRIGHT. In the order of your proceedings, it was to have been delivered by himself. The providence of God has overruled your arrangements. The voice which was to have been heard by the thousands assembled here, is silenced forever. He, who was to have stood before you, where I now stand, and to have borne a prominent part in your proceedings, has gone down, in the fullness of health and strength, to the tomb. The large space which Mr. Wright filled in the public eye, his great talents, and the moral elevation of his character, render this bereavement a National calamity. The general gloom, which the intelligence of his death carried with it, attests the profound respect, in which he was held by his countrymen, and the strong impression which his character and services had wrought in the public mind.

The admonition contained in these sudden dispensations of Providence is the more solemn, when those, who are conspicuous for their intellect and their virtue, are called from the field of their labor, while they are yet fresh and vigorous, and when the path they tread seems but an avenue to higher distinction. It is thus that the career of Mr. Wright has been terminated, while his faculties were in full vigor, and while much of the high promise of his life was yet to be fulfilled. His death is the more impressive at this time, and in this place, from the peculiar circumstances, by which his name is connected with the proceedings of the day. The intellectual labor in which he had been engaged, at the invitation of the Society, was performed. The address he was to have delivered was completed during the very last hours of his life. Thus, the accomplishment of the task he had undertaken for the Society, may be said to have been coincident with the termination of his earthly career.

I am not here, Mr. President and gentlemen, to pronounce an eulogy on the character or public services of Mr. Wright; but to perform the more humble part of reading to you the address which lies before me—the last labor of his life—and which seems to come as a legacy to the Society, to his friends, and to his countrymen. At the same time, I have thought it might not be inappropriate or unsatisfactory to refer briefly to some of the circumstances attending his decease.

It is well known that Mr. Wright for the last twenty years has held, without interruption, various public trusts requiring incessant mental labor and leading to a habitually sedentary life. In the intervals of his service in the Senate of the United States, from 1833 to 1845, a portion of his time was devoted to the cultivation of his garden and a few acres of land, by his own hands. While Governor of the State, he purchased an additional quantity of land, and when relieved from the duties of the Executive office, he applied himself with great diligence and zeal to the improvement of it. His labor was not merely that of superintendence. He was himself a principal laborer in all his agricultural operations. He hired an able-bodied, hard-working man, and went with him into the field, plowing, mowing and harvesting, performing himself a full share of labor; and after the fatigues of the day, retiring to his study and passing his evenings in reading and in correspondence. To these excessive exertions of body and of mind, and to the too rapid transition from a life of comparative bodily inactivity to one of severe manual labor, is doubtless to be traced the sudden attack, which terminated his existence. I need not dwell upon details, which have been so widely circulated, and are now so generally known. Suffice it to say, that on the morning after he had revised the address, which I am about to read, and after having made a few corrections, leaving it word for word as it now is, and probably precisely what it would have been if he had lived to deliver it himself, he was seized with a

severe pain in the breast, at the village post-office, walked calmly to his house with a few friends, and in two hours he had as calmly breathed his last.

Such, gentlemen, were the last hours of SILAS WRIGHT! The same calmness, which distinguished him throughout all the changes of his life, accompanied him at its close. From the first moment of his attack he appeared to understand its fatal character, and he submitted to it without a struggle or a murmur.

In him perished one of the purest models of a citizen and a statesman the country contained. He may be said, indeed, to have been an impersonation of the true character of her institutions. In the traditions and legends of early ages, before their eras of legitimate history, their periods are marked by the lines and actions of distinguished personages invested with the ruling characteristics of the communities, of which they were intended to be the types. The spirit of the political system is thus illustrated by the individual example. Mr. WRIGHT might have been copied, without any coloring of the imagination, as an exemplification of the genius of ours—of what it is and what it ought to be—of its simplicity, its purity and its strength. Plain and unostentatious in his manners, serene amid all the agitations of life, unambitious of wealth or of honors, singularly courteous and kind in his intercourse with others; equally dignified, whether dealing with the most complex questions of public policy in the Senate Chamber, or when tilling, with Roman simplicity, his own field; he recalled to mind those classical examples of disinterested patriotism and virtue, which gave lustre to the times in which they existed, and which have come down to us consecrated by the memory of ages.

The close of his life was in harmony with its whole course. It was appropriate that the last labors of his hands should have been performed with the implements of husbandry, and that the last effort of his mind should have been given to the cause of agriculture—a pursuit, to which the great masses his countrymen are devoted, and on which the purity of the body politic and the durability of our social system pre-eminently depend.

With these few remarks, which I could not forbear to make, and for which I trust the occasion will furnish my apology, I proceed to read the Address.

[For the Address, see another part of this paper.]

At the conclusion of the reading, the Hon. JOHN A. KING, of Queens county, arose and delivered a beautiful and touching eulogium upon the character of Mr. WRIGHT, and the loss which the Society, the State, and the country at large experienced in his death, concluding with the following resolution:—

Resolved, That the eloquent Address which has just been read, be printed; and that the President be requested to ask the permission of Mrs. Wright to retain the original draft of the Address, to be placed in the archives of the Society; and to express to her at the same time, the deep sympathy and regret which is felt by all its members for the irreparable loss which has so suddenly overwhelmed herself and the State in a common grief.

This resolution was seconded by LEWIS F. ALLEN, Esq., of Erie county, who adverted in glowing language to the merits of the Address, in the course of which he characterized it as one that would be regarded and appealed to by the agricultural interests as a model of excellence and the richest legacy which could be bequeathed to them. Mr. ALLEN concluded his remarks by submitting the following additional resolutions:

Resolved, That in the death of SILAS WRIGHT, late Governor of this State, the New-York State Agricultural Society have lost a friend, benefactor, an honored and useful member, and the community an illustrious example of republican simplicity in private, as well as of inflexible honesty, and great capacity in public life.

Resolved, That a committee of this society, be appointed by the President thereof, to prepare a brief memoir illustrative of his character, his virtues, and his eminent public services, for publication with the address delivered on this occasion in the Transactions for the year 1847—a duty the more gratefully performed, as the last public act of his life was one of beneficence to the farmers of his country.

The president then put the question upon the several resolutions, and they were adopted by acclamation.

On motion it was likewise resolved that copies of the remarks of Gen. DIX, Mr. KING, and Mr. ALLEN, be solicited from the speakers, and that they be published in connection with the address, by the Society, and entered upon its minutes.

The reports of the several committees were then read, and the premiums awarded to the successful competitors.

It was our intention to have published this month, a full report of the premiums awarded but unfortunately, we have not been able to procure it, and our readers must therefore wait till next month for it.

BERKSHIRE SWINE.

.....

MESSRS. EDITORS.—A short account of our unsuccessful efforts with the Berkshire swine in this section of country, may be interesting to some of the numerous readers of the Cultivator. They were pretty extensively introduced into this part of the country. I think, according to your description of the different sizes, that those brought here were principally the medium size, with "soft hair, thin skin," &c.; and on the whole were the most beautiful animals of their species I ever beheld. We obtained them at very moderate prices, compared with what was paid for them in the north; this made our losses light in this respect. They at first bid fair to do well; all appeared pleased with them, and anxious to obtain them; even some of our anti-book farmers, who had heretofore opposed all innovations of the kind, were forced to acknowledge that there "might be something in breeds after all." Many of us believed that we had hit upon a short cut to perfection in the improvement of our breed of swine—that for the future we had nothing to do but receive the profits arising from the increased value of our improved stock; but we were soon "led into a truer way of thinking." *Degenerate* they would and did, in spite of all we could do. I was extremely loath to give them up, they were so beautiful, and continued so long as I kept them sufficiently prolific. I gave them extra feed and attention, and I continued my efforts several years, hoping, if anything depended on the climate, that after becoming acclimated they would do better; but all my efforts proved unavailing, and I was forced to give them up.

I will particularize one instance: In the fall of 1845 I fattened eighty hogs, all pretty deeply mixed with the Berkshire, some of them full blood; they were from twelve to eighteen months old when fattened. The winter previous they were fed on corn, and although not lavishly fed, yet their keeping might be considered good. They were never poor—always plump and fleshy. In the spring they looked well, and were considered by all who saw them a pretty lot of small hogs. They run on well during the summer—had no grain, but an abundance of clover. In the fall I fed them about 2½ months with corn—the principal part of the time as much as they would eat. The average weight, when I sold them, was 120 lbs. This I suppose you would call a small business.

Such is my experience, and I find it accords pretty nearly with the experience of all with whom I have conversed on the subject. It may be proper to state that this was the heaviest failure I ever experienced. Previous to this they had done a little better. After this I disposed of them as soon as possible.

The principal objection to the Berkshires in this vicinity, is their size. Could we have realized the weights *complained* of by your correspondent in the February number, we should have been fully satisfied. The most desirable weights with us are from 200 to 250 lbs. Our pork is made into bacon, either by the farmers at home, or sold to speculators, who drive it to market for that purpose. In either case the above weights are preferred as making the most saleable article; but especially in the latter case, as being the best travellers.

So you will perceive that the breed of swine that suits us best, is such as will, at from twelve to eighteen months old, attain these weights with the least expenditure of food. The question now is, how will this failure affect us? Shall we become discouraged and cease our efforts, or shall we endeavor to profit by the past, and persevere until we gain the desired object? I hope the latter course will be adopted. J. W. Mt. Clinton, Va., 1847.

MONTHLY NOTICES—TO CORRESPONDENTS, &c.

COMMUNICATIONS have been received, since our last, from Schuyler Worden, M. Quinby, M., Wm. R. Prince, R. T., J. W., Jk. Marvel, Wardwell, Farnham & Brown, F. A. Sayres, J. B. McClelland, Chemical Student, P., H. A. W., P., Subscriber, D. A. Ogden.

Several communications intended for this No., are delayed, to make room for Gov. Wright's Address.

BOOKS, PAMPHLETS, &c., have been received as follows:

The Agricultural Magazine and Farmer's Journal, London, from F. CRISP, Esq., editor. The last No. was accompanied by a dozen beautifully executed lithographic prints of domestic animals, for which Mr. C. will accept our thanks.—*Commerce and Navigation of the Mississippi*, as also that appertaining to the city of St. Louis, a very valuable pamphlet of 32 pages, by THOMAS ALLEN, Esq., from the author.—*Catalogue of the Ashton Nurseries of THOMAS HANCOCK*, near Burlington, N. J.—*Constitution of the Chicago Hort. Society*, with lists of officers and members.—*Transactions of the Highland Ag. Society of Scotland*, from the Society.—*The Transactions of the Mass. Hort. Society*, for 1843-4-5-6, from B. V. FRENCH, Esq., Vice President of the Society.—*Dombey and Son*, Parts 10 and 11, illustrated edition, from the publishers, LEA & BLANCHARD, Philadelphia.—*History of the Press of Western New-York*, by Fred. Follett, Esq., copies from L. H. REDFIELD, Esq., Syracuse, and D. T. T. MOORE, Esq., Rochester.—*Norman's Southern Agricultural Almanac*, for 1848; edited by THOS. AFFLECK, Esq., an admirable work of the kind, devoted exclusively to the Agricultural interests of the South.

QUEENS CO. AGRICULTURAL SOCIETY.—The annual exhibition of this society is to be held at Hempstead on the 8th inst. The Prize List is very extensive, and cannot fail to draw out a large array of live stock, dairy products, grains, farm implements, vegetables, fruits, flowers, &c. The address will be delivered by Dr. Stevens of New-York.

IMPORTED LEICESTER RAM.—We lately saw a superior Leicester ram, belonging to RICHARD FERRIS, Esq., of Eaton Rapids, Michigan. This fine animal was imported last December, by Dr. F. T. FERRIS, of New-York, a brother of the gentleman above-named. On the 28th of May last, this ram yielded fifteen pounds of wool, (unwashed.) He is three years old, and is estimated to weigh 225 pounds. We trust he will arrive safe at Mr. F.'s farm in Michigan, where we have no doubt he will prove useful in increasing the size, early maturity, and fattening tendency of the sheep of that section.

SUBSTITUTE FOR HOOPS IN BALEING HAY.—Mr. CORNELIUS H. VANDERZEE, of Coeymans, wishes to know whether any substitute for hoops, in baling hay, could be used to advantage. Has any one tried the outer fibre of the sun-flower? Or is there any other plant, or any tree, the outer coating or bark of which has been found useful in this or a similar business? It is proper to state that for hay, an article would be required of equal strength to a common rope of hemp or manilla, of half an inch in diameter.

FINE WOOLED SHEEP.—Among our advertisements will be found that of Mr. SMITH, for the sale of his sheep. The following paragraph from a letter of his, furnishes an account of the origin of his flock. Some samples of wool forwarded to us, are of extra quality: "Upwards of twenty years ago, I purchased three full-blooded Merino ewes, for which I paid thirty-five dollars. They were descended from Col. Humphrey's flock, of Connecticut. With these, and a selection from my father's flock, which at that time was one of the best in the country, I commenced the business of breeding fine-wooled sheep. About this time the Saxon fever commenced, and I procured the best Saxony bucks to use for my sheep, having especial regard to the fineness of the fleece. I bred from Saxon bucks until I found that my fleeces averaged but 2 lbs. 10 oz. of wool, and the constitution of the sheep was greatly enfeebled. For about twelve years past I have bred from heavy fleece bucks of good constitution and fineness of fleece. With these bucks I have raised

the weight of the fleeces of my whole flock to 4lbs. 4 oz. per head, and I anticipate with my present buck to bring them up to five pounds per head. My lambs for two seasons past, have averaged 4½lbs. My sheep at present are very hardy, and it is very seldom I lose one."

FINE FRUIT.—We are indebted to Mr. D. B. KIRTLAND, of the Cantonment Farm, Greenbush, for very fine samples of Skillman's melon, two samples of superior peaches, specimens of the Imperial gage plum, and a very good seedling plum of his own raising, and specimens of a very fine apple, probably the Hawthornden.

We have also received from DAVID COLE, Shaker Village, Watervliet, fine specimens of the Spanish watermelon, and musk-melon.

SUMMER BON CHRETIEN PEAR.—Mr. D. A. BUCKLEY, Williamstown, Mass., has left us a sample of this pear. Mr. DOWNING describes this as being one of the oldest pears known, having been cultivated all over Europe for the last two centuries. It ripens the last of August or early in September. In regard to its quality, Mr. DOWNING says—"though a sweet and pleasant pear, it wants the flavor of our finer sorts, and does not deserve a place in a small garden."

PRESERVING GREEN CORN FOR WINTER.—Mr. C. H. TOMLINSON, of Schenectady, informs us that he saves green corn for table use in winter, by the following mode. When sweet corn is in the proper state for boiling, the ears are gathered, the outer husks stripped off, leaving only a single layer next the corn. The ears are then packed in a clean tight barrel, and covered with strong brine. It will keep a year. When wanted, the husk is taken off, the corn cut from the cob and soaked in fresh water for thirty-six hours, or till the salt is entirely extracted. By shifting the water, the freshening process is hastened. It is boiled in the same manner as ordinary sweet corn, and when cooked, about a table spoonful of sugar to two quarts of corn is mixed with it, and it is considered in no way inferior to corn just picked from the stalk.

MIDDLESEX CO. (CT.) AG. SOCIETY.—We are indebted to WM. MAKINSTER, Esq., for the list of premiums to be awarded at the next Cattle Show of this Society, which is to be held at Middletown, on the 6th, 7th, 8th, and 9th of this month.

SECURING VEGETABLES.—Potatoes should be dug and housed before the ground freezes. If they are in the least touched by frost, they are more liable to rot; and even if they are not actually frozen, they may become so chilled that their quality for keeping is injured. It is generally better to dig them soon after they get ripe. If the ground is dry, the potatoes will not suffer by remaining in it till the approach of frosty weather, but if the ground is wet, they will be better off in a cool, dry cellar. Another inducement for digging early, is, that after the potatoes get ripe and the vines die, the ground is very liable to be overrun by weeds, which greatly increases the labor of taking up the crop. Turneps, beets, cabbages, &c., may remain out till the first of November—in fact, if the weather is mild during the month of October, these articles generally continue to grow till through that month. Carrots and parsnips are sometimes left out all winter. Parsnips stand the frost without injury, but carrots, in this latitude, are generally more or less injured, and frequently spoiled. Indeed, it is better to dig the

principal part of the parsnep crop in the fall. The tops or crowns should be cut off so closely that they will not sprout, and they should be covered with sand to keep them from the air. Managed in this way they keep well, and may be readily obtained for use all winter. Those left in the ground till spring will keep but a short time; and as soon as the tops start, the nature of the root is changed—from being sweet and nutritious, it becomes bitter and poisonous.

GREAT YIELD OF WHEAT.—It is stated that Mr. DUNCAN MC VEAN, of Wheatland, Monroe county, N. Y., harvested the present year, 250 bushels of wheat from four acres of land. This would be 62½ bushels per acre. The grain is said to have been of Soule's variety.

POETRY.—Why may not your valuable Cultivator be occasionally enriched by poetry? Will it not add new interest and animation to its contents? Will it not be, comparatively, to your solid and useful matter, what the flowers and shrubbery of the farmer's house and garden, is to his useful barn and cornfields? Why recommend the tiller of the soil to plant trees and flowers, and decorate his grounds with the poetry of nature, and not enrich and enliven your columns occasionally with the poetry of the mind and heart? I am no poet, nor do I care to read a hundredth part of what is called poetry; but I have often wondered at its almost entire absence from your valuable paper. I have taken the liberty of calling your attention to the subject, knowing that, at the most, it could do no harm; and I also enclose some lines applicable to the purpose. Yours respectfully, H. B. TUTTLE. *Cuyahoga Falls, Ohio, August 18, 1847.*

THE TILLER OF THE SOIL.

BY DAVID L. ROATH.

A hardy, sunburnt man is he,
A hardy, sunburnt man;
No sturdier man you'll ever see,
Though all the world you scan.
In summer's heat, in winter's cold,
You'll find him at his toil—
Oh, far above the knights of old,
Is the Tiller of the Soil.

No weighty bars secure his door,
No ditch is dug around;
His walls no cannon bristle o'er,
No dead lie on his ground.
A peaceful-laborer is he,
Unknown in Earth's turmoil—
From many crushing sorrows free,
Is the Tiller of the Soil!

His stacks are seen on every side,
His barns are filled with grain;
Though others hail not fortune's tide,
He labors not in vain.
The land gives up its rich increase,
The sweet reward of toil;
And blest with happiness and peace,
Is the Tiller of the Soil.

He trudges out at break of day,
And takes his way along;
And as he turns the yielding clay,
He sings a joyful song.
He is no dull unhappy wight,
Bound in misfortune's coil;
The smile is bright, the heart is light,
Of the Tiller of the Soil!

And when the orb of day has crown'd
With gold the Western sky,
Before his dwelling he is found,
With cheerful faces by—
With little laughing duplicates,
Caresses will not spoil;
Oh, joy at every side awaits
The Tiller of the Soil!

A hardy, sunburnt man is he,
A hardy, sunburnt man;
But who can boast a hand so free,
As he, the Tiller can?
Nor summer's heat, nor winter's cold,
The power has him to foil—
Oh, far above the knights of old,
Is the Tiller of the Soil!

LECTURES ON AGRICULTURE.

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We have great pleasure in laying before our readers, the annexed notice of a course of lectures on Agriculture, by Mr. NORTON, who, it will be remembered, was sometime since appointed Professor of Chemistry as connected with Agriculture, at Yale College. It will be seen that Mr. NORTON enters upon his duties as Professor, by the delivery of a course of lectures, intended, not so much for the proficient in chemistry, as to give the farmer a clear and connected view of both science and practice in their relations to each other. From a recent interview with Prof. NORTON, we were gratified to learn that it was his intention to give this course of lectures such a character as to attract and interest that large class of farmers who know little or nothing of chemistry—to show them the proper connection of science with their pursuits, and to invite them to a course of study and reflection, calculated not only to improve their minds, but essentially to benefit them in the practical operations of their business. From his long and laborious investigations of the science of agriculture, under the ablest professors of chemistry, both at home and abroad—from his knowledge of the character and wants of our farmers, and the practical good sense which he brings to the task, we have the highest confidence that an institution is now founded, which will afford those who desire to partake of its benefits, a sound, practical, scientific agricultural education, such as is required to enable those who intend to become agriculturists, to follow their profession with both pleasure and profit.

The course now proposed, will continue two months, commencing on the first of January. The whole expense attending it, for board, tuition, &c., need not exceed \$35 to \$50, and we hope, and cannot but believe, that the class in attendance will be sufficiently numerous to afford Prof. Norton and the Trustees of Yale College, conclusive evidence that they have acted wisely in opening this avenue to knowledge to the farmers of our country.

In addition to the lectures, those who wish to pursue a short course of elementary Chemistry in the laboratory, will have an opportunity afforded to them, at a small additional charge. Two hours daily, will be devoted to the instruction of such pupils in simple experiments and tests, calculated to be useful in practical experience.

.....
INSTRUCTION IN CHEMISTRY AND THE CONNECTED SCIENCES, AT YALE COLLEGE, NEW-HAVEN, CONN.—The new Laboratory of Analytical Chemistry, connected with this institution, will be opened on the 1st of November.

Pupils will, however, be received and temporarily accommodated, on the 1st of October.

The Department of Chemistry applied to the Arts, &c., will be under the charge of Prof. B. SILLIMAN, Jr.

That of Chemistry applied to Agriculture, will be under the charge of Prof. JOHN P. NORTON.

Every facility will be afforded to pupils who wish to acquire a thorough knowledge of elementary or applied Chemistry, Mineralogy, and Metallurgy, and the terms of tuition will be as moderate as the nature of the case will admit, and proportioned to the requirements of the pupil.

The annual course of Lectures on Elementary Chemistry, by Prof. B. SILLIMAN, will commence on the 2d of October, at 12 M., and continue with five lectures each week, until about January 1st. Ticket, \$15.

Prof. NORTON will commence a course of lectures on the APPLICATION OF SCIENCE TO AGRICULTURE, in January, 1848. This course will continue about two months, and there will be four lectures in each week. The object of these lectures will be to give the farmer


a clear and connected view of both science and practice in their relations to each other. Experiments will be given when they are necessary to the clear understanding of the subject. The fee for this course will be \$10.

Soils, rocks, minerals, metallic ores, and other substances, will be promptly analyzed on moderate terms. Pupils not otherwise connected with the college, participate in all the advantages of the above courses.

Arrangements will be made by which pupils in these departments can enjoy the advantage of attending to other courses of instruction in science, in this institution, which are open to the public; and they can also have easy access to large libraries and scientific collections. New Haven is a place of easy access from all parts of the Union, and is the resort of nearly six hundred students in the various departments. Board and lodging are procurable on very moderate terms.

Additional particulars will be promptly supplied on application by letter to either of the gentlemen whose names are given in this advertisement. *New Haven, Conn., Sept., 1847.*

THE HORTICULTURIST for October, (No. 4, Vol II.) is embellished with a plate of "Montgomery Place," the beautiful and highly improved seat of Mrs. Edward Livingston, on the Hudson. Among its contents, are a description of this most delightful residence, illustrated by several engravings—the Cultivation and Propagation of Azaleas—Culture of the Peach—a Hint to Plant Growers—Memoranda on Pears—Fertilization of Plants—Remarks from Experience on the value of twenty-five Pears—Suggestions in regard to Pomological Reform—The Ida Green Gage Plum—Popular Errors about the rise and fall of Sap, with a great variety of shorter but valuable articles, under Foreign and Domestic Notices—Horticultural Exhibitions, &c., &c. This work, edited by A. J. DOWNING, Esq., is gaining an extensive circulation, and cannot fail to awaken a lively interest in the advancement of the rural arts throughout our country. It is published monthly, 48 pages octavo, at the office of "THE CULTIVATOR," and may be obtained of Messrs. NEWMAN & Co., booksellers, 199 Broadway, New-York—Messrs. J. BRECK & Co., Seed Store, 52 North Market-st., Boston, and of Messrs. ZIEBER & Co., booksellers, Chestnut-st., Philadelphia. Price \$3 per year.

 The *American Farmer* copies without credit, our synopsis of the "Debates on the Profits of Farming," which took place at the Agricultural Meetings in Boston, last winter. The article as published in the *Cultivator*, was made up by us with considerable labor—it being the substance of the whole discussion, which occupied four or five evenings, and was very carefully re-written from the reports of all the meetings, published in no less than four different papers.

COMPOST.—The *American Farmer* recommends a compost prepared in the following manner. Take 40 bushels of mould from the woods, 5 bushels of ashes, leached or unleached, 5 bushels of bone dust, 1 bushel of plaster: the whole to be incorporated together by shovelling over, and the heap to be then thoroughly moistened by 30 gallons of human urine, and again shovelled over. The compost is recommended for one acre of wheat.

SPANISH MERINO SHEEP.

FOR sale a few choice Merino sheep—bucks and ewes—of undoubted purity of blood, and a quality that will give satisfaction to purchasers. They can be sent west by canal, at the subscriber's risk.

R. J. JONES.

Cornwall, Vt., June 1, 1847.—if.

PRICES OF AGRICULTURAL PRODUCTS.

New-York, Sept. 21, 1847.

FLOUR—Genesee, new, \$5.75a\$5.87—Ohio and Michigan, \$5.50a\$5.75. Demand steady.

GRAIN—Wheat, Genesee, per bu., \$1.20—Corn, northern, 63a 65c.—Rye, 74a75c.—Oats, 45a47 c. for good lots.

BUTTER—Orange County, per lb., 19a20c.—Western, dairy, 12a14 cents.

CHEESE—per lb., 7½a7¾c. for Herkimer county—6½a7 for Ohio.

BEEF—Mess, per bbl., \$12.75a\$13 In demand.

PORK—Mess, per bbl., \$13.50—Prime, 10 50. Dull.

HAMS—per lb., smoked, 10½a11cts.

LARD—Per lb. 10a10½c.

HEMP—Russia clean, per ton, \$275—American, dew-rotted, \$110

HOPS—new, western, per lb., 10a12c.

COTTON—New Orleans and Alabama per lb., 12½a14½c.—Up land and Florida, 11a13½c.

WOOL—(Boston prices,) Sept. 18.

Prime or Saxon fleeces, washed per lb. 45a47½ cts.

American full blood fleeces, 40a42½ " "

three-fourths blood fleeces, 34a36 " "

half blood do 34a36 " "

one-fourth blood and common, 28a30 " "

REMARKS.—By the *Britannia*, which left Liverpool on the 4th of August, and arrived at Boston on the 20th, we have English papers to the 3d of August. The prices of breadstuffs were still lower. The best western canal flour was quoted at 24s. 6d. and 25s. 6d. per bbl. Richmond and Alexandria at 23 s 6d. and 24s. Philadelphia and Baltimore 23s. 6d. and 24s. New Orleans and Ohio 20s. and 21s. Sour 20s. Indian corn 26s and 31s. per quarter. American pork was dull, and transactions in the article limited. Beef in demand, and a short supply in market.

The failures of English corn-factors have been quite numerous, and the results have been seriously felt by some of our grain and produce dealers. The crops, both in the British islands and on the continent, of Europe are good. In England and Scotland the harvest is unusually abundant, and in Ireland it is not lacking. The potato disease has appeared in a few locations, but the diminution in the usual supply, at the worst, is not expected to be less than one-fourth. The Mark Lane Express, speaking in regard to the disease, says, the potato may be fairly pronounced "convalescent," and will probably speedily recover its usual health. In various parts of Europe, the crops are described as heavy almost beyond precedent.

NOTICE.

ORDERS for the "Warren Horse Power and Thrasher," (latest style) Trimble's and others.—Also for Agricultural Machinery and Implements generally, will continue to be promptly attended to by the undersigned at 126 Pearl st. **JAMES PLANT.**
October 1, 1847.—It. New-York City.

APRICOT TREES FOR SALE.

THE subscriber has for sale, at his nurseries at Fishkill Landing, N. Y., a few thousand of his Early Golden Apricot, which was noticed by Mr. Downing, in the *Horticulturist* for August.

This Apricot being a new variety, and a hardy and thrifty growing tree, the fruit ripening early, and the trees bearing young, in any exposure, and the fruit being comparatively free from the attacks of the Curculio, he can recommend it as a valuable kind to cultivate, either for market or domestic uses. The original tree, from which the present stock was worked, has been in bearing eighteen years, and has not failed to produce a fair crop every year. The fruit the present year sold for twenty dollars per bushel, by the quantity.

The trees are worked on peach and on plum stocks. Those on peach stocks, two years from the bud, are offered at twenty-five cents each, and those on plum stocks, one year from the bud, at 37½ cents each. A liberal discount by the hundred.

Also a large lot of Frost Plums, and a general assortment of Fruit Trees and Grape Vines. Priced Catalogues sent on post-paid application. **CHARLES DU BOIS.**

Fishkill Landing, Oct. 1, 1847.—It.

FRUIT TREES OF SELECT VARIETIES ONLY.

For sale at the NURSERY of J. J. THOMAS, Macedon, Wayne county, N. Y.

THE aim of the proprietor has been to select only the very finest varieties, which their time of ripening, excellence, or productiveness, renders eminently desirable. This selection has been made personally, after many years of careful examination, from several hundred sorts in bearing.

No kinds are ever offered for sale which have not been fully tested by trial in a bearing state, so as to insure in all cases their genuineness or excellence.

The stock of Apples consists of many thousand trees, and are mostly of large size and fine growth; and besides the best standard varieties, includes the finest new sorts—as Northern Spy, Early Joe, &c.

The Cherries comprise the most celebrated varieties, and the trees are large, straight, and handsome. A good collection of Peaches, Apricots, and other kinds of fruit—all at moderate prices.

A large and select collection of Ornamental Trees, Flowering Shrubs, and Plants, including many of the most brilliant Roses, of new and rare kinds.

Catalogues and information by letter furnished on all post-paid applications; and trees securely packed in wet moss with mudded roots, so as to be sent with perfect safety by canal or railroad.
Oct.—2t.

SOUTH DOWN BUCKS.

THE subscriber offers for sale a few very superior South Down Bucks, some of which were selected by him in England. They are thought to be the best sheep of this breed in America, uniting as they do the blood of the celebrated flocks of the Duke of Richmond and Earls Jersey and Bathurst.

Application may be made by letter, addressed to Rhinebeck, N. York, or personally at the Ellerslie Farm, on the Hudson river, two miles south of Rhinebeck Landing. WILLIAM KELLY. Ellerslie, Oct. 1, 1847.—1t.

10,000 Copies in Four Months.

COLE'S AMERICAN VETERINARIAN,

OR Diseases of Domestic Animals, showing the Causes, Symptoms, and Remedies, and rules for restoring and preserving health by good management, with full directions for Training and Breeding, by S. W. COLE, Esq.

This is emphatically a book for every farmer, and no farmer's library is complete without it. The demand for TEN THOUSAND COPIES in the short space of four months, speaks volumes in favor of the work. The farmer has in this neat and compact volume, a complete ENCYCLOPEDIA, in which he may find the whole subject of the Treatment of Domestic Animals, familiarly discussed, and rules and remedies fully and clearly prescribed.

Highly recommendatory notices have been received from many of the most distinguished Farmers and Editors in the country. The following short extracts show in what estimation the work is held.

[From Ex-Governor Hill of N. H.]

"Mr. Cole has shown himself well qualified for the compilation of this work. We understand that it has already had a free and extended sale; many times its price to almost any farmer, may be saved in its purchase."

[From J. M. Weeks, of Vermont.]

"The American Veterinarian is the best book of the kind I have ever seen. Every Farmer ought to have one."

[Christian Mirror, Portland.]

"We think no farmer would willingly be without this book after glancing at the Table of Contents."

[Albany Cultivator.]

"This will be found a useful book. It speaks of diseases under the names by which they are known in this country, and the remedies prescribed are generally within the reach of every farmer, and may frequently be found on his own farm. We second the suggestion that it should be in the hands of every farmer."

[American Agriculturist.]

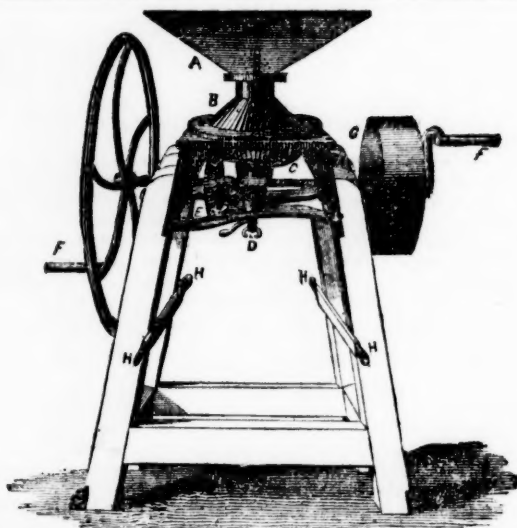
"We recommend to all who keep Domestic Animals to procure Mr. Cole's new book. The lives of many valuable animals might be saved by following his directions."

The price of this valuable book, finely bound in leather, is 50 cents.

WANTED—50 active, intelligent, and enterprising agents, to sell this work, two in each State in the Union. A small capital of from \$25 to \$50, will be necessary for each Agent. Address, POST-PAYD, the publishers. JOHN P. JEWETT & Co.

October 1—3t.

23 Cornhill, Booksellers' Row, Boston.



JOHN MAYHER & CO.'S NEW SELF-SHARPENING CORN, COFFEE, AND SPICE MILL.

THE above cut shows the construction of our Premium Mill for Grinding Corn, Oats, Coffee, Spices, &c., &c. It is considered highly valuable for its simplicity of construction, durability, and its adaptation for farmers, planters, and grocers. It may be operated by hand or horse power, and will grind from four to five bushels of good meal per hour, and from 300 to 400 lbs. of coffee or spice per hour. Price, from \$28 to \$30. We also have for sale a smaller mill for the same purpose, which will grind from 1½ to 2 bushels of corn per hour, and from 90 to 100 lbs. of coffee per hour. Price, from \$5 to \$6.

JOHN MAYHER & CO.,

United States Agricultural Warehouse,

No. 195 Front, near Fulton-st., N. Y.

Oct. 3—1t.

TAR PAINT AND LIME.

TAR PAINT for sale at the Albany Gas Works: A very cheap article for covering barns, &c.

LIME for sale at the Albany Gas Works, cheap.

Oct. 1—6t.*

OSWEGO NURSERIES AND FLORAL GARDEN.

I. W. P. ALLEN, Esq., having sold his interest in this establishment to E. A. Sheldon, the business will in future be conducted under the name of SHELDON & KLINE. Mr. Allen will hereafter devote his time as an amateur and market cultivator; and has kindly offered us his services in the introduction and testing of every new and rare variety, together with the use of his specimen grounds; and we flatter ourselves that we shall soon be able to show the finest collection of fruit in the Union; especially of PEARS and PEACHES, to which our soil and climate seem remarkably well adapted. The position of our nursery being the most northerly of any in the United States, and situated upon the immediate shore of the lake, fully exposed to the winds, which, at the same time, serve as a protection from the severity of frosts to our more tender fruits, renders our trees much hardier, and far more desirable for transplanting into every variety of soil and climate, than those grown in more southern sections, and on stimulated soils. Our trees are all vigorous and healthy, and free from the numerous diseases with which most other nurseries are infected.

The yellows of the peach, and the frozen-sap and fire-blight of the pear, are diseases never known in the Oswego nurseries.

We have now ready for sale some thirty thousand peach trees of the choicest varieties.

Our supply of Pears is also large and very desirable. We have, in addition to the usual stock, a few hundred of the *Oswego Bourne*, only to be obtained at these nurseries, which can be supplied, if desired, at \$2 each, for those two years old from the butt or graft. Grafts will be supplied for \$2 per dozen.

Our stock of Apples, Plums, Apricots, and Nectarines, though not as extensive, we trust is sufficient to supply the demand.

We have a good assortment of Ornamental Trees and Shrubs. Our Ailanthus, of which we have several thousand, are of the largest size.

Our collection of Roses, Bulbous Roots, Herbaceous, and Green-house Plants is very extensive.

All articles sold as cheap as can be obtained from any other nursery in the state. All orders promptly filled, and trees and plants packed and shipped in good order. Catalogues sent gratis to all desiring them. Address SHELDON & KLINE,

Oct. 1, 1847.

East Oswego, N. Y.

WILSON, THORBURN & TELLER.

IN addition to their other nursery stock, will have for sale this fall, Beurre Langlier, Leon Le Clerc, Colmar D'Arenberg, Inconnue, Van Mons, and Althorp Crassane Pears.

W., T. & T. would also inform the public that they have made an arrangement with Dr. HERMAN WENDELL, by which they are to have the control of the stock of his magnificent new seedling cherry called "Wendell's Mottled Bigarreau," trees of which variety they will have for sale in the autumn of 1848.

Sept. 1, 1847.—1t.

GRANT'S PATENT FAN MILLS.

THE right to manufacture these celebrated mills can be obtained of the subscriber, at Junction P. O., Rensselaer Co., N. York. He also gives notice that he shall prosecute all persons who in any manner infringe upon his patent.

I. T. GRANT.

Junction P. O., Rens. Co., N. Y., Sept. 1, 1847.—4t.

AGRICULTURAL WAREHOUSE.

THE subscriber, manufacturer and dealer, has constantly on hand an extensive assortment of AGRICULTURAL IMPLEMENTS, of the most approved patterns.

PLOWS, adapted to every variety of soil, embracing nearly 150 different patterns and sizes, among them the PREMIUM PLOW, for which he was awarded the silver cup, at the Fair of the American Institute, in Oct., 1846.

Moore's Premium Plow, which for general purposes has no superior.

Freeborn & Hitchcock's Plow, a good article, very extensively used at the south.

Minor, Horton & Co.'s Plows, various sizes.

Ruggles, Nourse & Mason's " " "

Prouty & Mears' " " "

Sub Soil " " "

Two and three furrow " " "

Side Hill and Double Mould " " "

Cultivators, with steel and cast shares.

Harrows, plain and double hinged.

Corn Shellers, Straw Cutters.

Mills for Grinding Grain, Corn and Cob Crushers.

Portable Horse Powers, of various kinds, for driving Threshing Machines, Mills, and other Machinery.

Threshing and Clover Machines of various kinds; Clover Cleaning machines.

Fanning Mills,

Grain Cradles,

Wheel Barrows,

Plow Castings, Castings for Horse Powers, Mill and Gin Gear, &c., &c. Carts and Wagons made to order.

Also on hand and manufactured to order, every description of Brass, Copper, and Iron Wire Cloth, Sieves, Screens, Riddles, &c. all of which will be sold on the most favorable terms.

JOHN MOORE, 193 (old No. 183) Front-st., N. York.

Sept. 1, 1847.—1t.

Store and Steamboat Trucks,

Cotton Trucks,

Sugar Mills,

A VALUABLE FARM IS FOR SALE

IN Windsor, Vt., containing upwards of 400 acres of land, comprising tillage, grazing, and woodland in due proportion. It is situated on the banks of the Connecticut river, near the village of Windsor, and also near the eastern terminus of the Vermont Central railroad, and is well provided with suitable buildings, among which is a beautiful English cottage, recently built. The farm is in a fine state of cultivation, and in point of capacity for improvement and convenience, and beauty of situation, is unsurpassed in its own beautiful valley.

SAM'L H. PRICE, Agent.

Windsor, Vt., Aug. 1, 1847.—3t.

PROUTY & MEARS' PLOWS.

THESE celebrated plows are warranted, and the money will be returned for every plow that does not suit. Hon. Dixon H. Lewis, Senator from Alabama, said, at the Farmer's Club in New-York, "My corn crop declined from 70 bushels per acre to 40; I sent north and got one of Prouty's plows, and now have the best crop within 50 miles."

The subscriber is sole agent, and offers for sale an assortment of the above plows, as also a general stock of agricultural implements.

SAMUEL C. HILLS, 189 Water-street, N. Y.

New-York, August 1, 1847.—3t.

ONE OF THE GREATEST INVENTIONS OF THE AGE.

KEPHART'S PATENT FRUIT AND VEGETABLE PRESERVER—by the use of which Fruits, Vegetables, Butter, Eggs, Bacon, &c., can be had at all seasons of the year—possessing all their natural juices and flavor.

The undersigned, having purchased the above patent right for the United States and Territories, excepting the states of New-Jersey, Delaware, Maryland, and the cities of New-York and St. Louis, invite the attention of the public to an examination of the scientific principles upon which the above invention is based, as well as its practical utility. For a particular description of the Preserver, see the Cultivator for July, 1847, page 217. They offer for sale patent rights for the construction and use of the Preserver, by states, cities, counties, towns, or individual rights, upon terms that will induce all interested in the growth or sale of fruit and vegetables; also dealers in butter, eggs, or in the curing and preservation of meats, to purchase rights and construct houses.

All desirous of a farther knowledge of the operations of the preserver, can see one in operation, either by calling upon P. Kephart, Western Hotel, Baltimore, Md., who is our authorized agent, or upon the subscribers, Coats-st. Wharf, near Fairmount, Phila.

All communications will receive prompt attention if addressed either to P. Kephart, Baltimore Md., or FLACK, THOMPSON & BROTHER, Spring Garden P. O., Philadelphia, Pa.

July 1—4t.

PURE BRED RAMS.

THE subscriber has a few choice rams for sale, bred from the celebrated flock of Geo. Flower Esq., of Albion, Illinois, and some from a Saxon ram imported by Henry Clay, Esq., of Ashland, Kentucky. These sheep are of fine healthy constitution, with a very fine long staple.

He has also added to his flock 20 ewes and rams, selected from the flock of Samuel Patterson, Esq., of Washington Co., Pa. These sheep are not surpassed by any in America; [see the communication of L. A. Morrell, Esq., Cultivator for Nov. 1846,] their wool having been sold last year in Northampton, Mass., at 75 cts.

He has also a few fine young Shepherds' Dogs, bred from a Scotch cully, imported by Mr. Mitchell, of Lasalle Co., Ill.

A. H. NICHOLS, Greencastle, Putnam Co., Ia.

August, 1, 1847.—4t.

GENEVA AGR'L FOUNDRY AND SHOPS.

THE subscriber has recently put in operation a new FOUNDRY AND MACHINE SHOP, intended chiefly for the manufacture of AGRICULTURAL IMPLEMENTS. A number of valuable improvements in various farming tools having been made and patented by his predecessor, (T. D. Burrall,) this establishment has been erected for the manufacture of these and such other implements as the market may require, and in order that purchasers may depend upon a genuine and well finished article. Among other things he has now on hand

Burrall's Patent Threshing and Clover Machines and Horse Powers
" " Shell Wheel Plows, greatly improved the present season.

Burrall's Patent Corn Shellers, Nos. 1 and 2, do. do.

Also, Subsoil, Corn, and Shovel Plows, Straw Cutters, of various kinds. Scrapers, Plow Points, Trimmings, &c., &c.

He intends adding to his present stock from time to time, by selections from the best articles in market; all which will be got up in the best style, and sold, wholesale and retail, on reasonable terms.

Mill Gearing, Castings of all kinds, pattern-making, &c., &c., executed on short notice.

E. J. BURRALL.

Geneva, August 1, 1847.—4t.

MULTICOLE RYE.

THIS kind of rye was introduced from France a few years since, but has been tried in this country sufficiently to prove its adaptedness to our soil and climate. Its yield, in most cases, is from a sixth to a fourth more than that of common rye, under the same circumstances. A few bushels for sale at the Ag. Warehouse and Seed Store, 10 and 12 Green-st., Albany.

Sept. 1.

LUTHER TUCKER.

BUFFALO NURSERY AND HORTICULTURAL GARDEN, BUFFALO, N. Y.

THE stock of fine, thrifty Apple trees, now of size for sale, is unusually large and fine. The assortment of Cherry trees is also very extensive, comprising the most choice and popular sorts. Peach trees, a very fine collection, healthy and free from disease. Pear trees of the most choice and select varieties, both on free stocks and also worked on quince stocks, for dwarfs or garden culture. But seven trees in these nurseries have ever been affected by fire blight. Also, a very general assortment of the Plum, Quince, Apricot, Nectarine, Gooseberry, Currant, Raspberry, Strawberry, &c.

The assortment of Ornamental Trees and Shrubs, Flowering plants, embraces almost every desirable article in this department.

Roses, 240 varieties. Many very choice and rare varieties of Moss, Hybrid Perpetual, Bourbon, and other roses, have recently been added to the collection.

A fine collection of Green-house Plants; among them 30 choice varieties of the Camelia Japonica.

Very extensive additions are constantly being made to this establishment, and no expense has been spared to render it as perfect as that of any other in our country. Trees destined for the west will be shipped at Buffalo, per steamboat or propeller, unless otherwise ordered; and the advantages that these nurseries possess over eastern nurseries in supplying the great west will be seen at a glance. To say nothing of the extra expense of transportation, the saving of eight or ten days, [very often two or three weeks,] in their transportation, is an item of some little importance.

The new Descriptive Catalogue of this establishment, a pamphlet of 60 pages giving a full description of several hundred varieties of fruits, &c., will be sent gratis to all post-paid applicants. Orders by mail, or otherwise, will receive the most prompt attention.

Buffalo, Sept. 1, 1847.—2t.

BENJ. HODGE.

AMERICAN EGG HATCHING MACHINE.

Patented Feb. 20, 1846.

AFTER 15 months of practical demonstration, the subscriber is enabled to present the above machine to the public with confidence, as an auxiliary to the wants of the farm-house. It is so simple in its construction and management, that a child can in a short time superintend its operations, with about an hour's attention during the day; and it requires no care after bed-time. Alcohol, or other high wines, is found to be the cheapest and cleanest fuel, and by repeated trials, the average expense of this kind of fuel does not exceed a quarter of a cent an egg, for the full term of twenty-one days. The chickens produced are healthy and strong, and their fine appearance has been the subject of general remark, among the many visitors (now) attending Saratoga. Full printed directions and explanations accompany each machine. The machines are durable, and can be sent with safety through any of the ordinary channels of conveyance.

PRICES.

No. 1, containing between 250 and 300 eggs,...	\$20 00
" 2, " " 500 and 600 " "	30 00
" 3, " " 800 and 1000 " "	40 00

Rights for towns, counties, or states, will be disposed of on very reasonable terms.

Reference, Editors of Cultivator.

L. G. HOFFMAN.

Albany, Sept. 1, 1847.—2t.

I. T. GRANT & CO'S PATENT PREMIUM FAN MILLS.

THE subscribers, manufacturers of these celebrated mills, having enlarged their manufacturing establishment, hope to be enabled hereafter to supply promptly the rapidly increasing demand for that article. Their Fan-mills have taken the first premium at four of the New-York State Agricultural Fairs, at the State Fairs in Pennsylvania and Maryland, at the Fair of the American Institute, and at a large number of County Fairs, and secured the highest consideration at the great National Fair, at the city of Washington. They have been repeatedly tried, and the principle upon which they operate thoroughly tested by committees appointed for that purpose, and in every instance have been declared superior to any that have come in competition with them. They have never been awarded the second premium, and are the only mills manufactured, that will chaff and screen wheat perfectly clean (and at the rate of one bushel per minute) at one operation, taking out the chaff, cockle and smut at the same time. They will also thoroughly clean rice, and all kinds of grain and seeds by running it through once.

The materials, workmanship, and finish of these mills are superior to any in market. The bearings are all turned and finished so that a boy can turn them with perfect ease. We manufacture four sizes, (with seven sieves to each mill,) varying in price from \$21 for No. 1, to \$27 for No. 4, and warrant them superior to any now in use.

We also manufacture very superior Grain Cradles, which have taken the first premiums wherever exhibited.

Our Fan Mills and Cradles are for sale at the following places:

John Mayher & Co., 195 Front-st., New-York.

E. Whitman, 55 Light-st., Baltimore.

Denslow & Webster, Savannah, Georgia.

Fitzhugh Coyle, Washington City.

J. W. Howes, Montpelier, Vt.

Luther Tucker, 10 & 12 Green-st., Albany, N.Y.

H. Warren, Troy.

I. T. GRANT & Co.

Junction P. O., Renss. Co., N. Y., Sept 1, 1847.—4t.

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PURE SOUTH DOWN SHEEP.

WILL be for sale at the Fair of the American Institute, in October next, two Bucks and two Ewes, very handsome; descended from the flock of the late John Ellman, Esq., of Glynde, Lewes, Sussex, England. OB'H. ELLIOT.

Middleham, Elizabethtown, New-Jersey, Oct. 1, 1847.—1t*

SHEEP AT AUCTION.

PERKINS & BROWN have between two and three hundred Bucks, and probably about as many ewes, more than they wish to winter, which they will sell at auction on Tuesday, the 19th of October next. Terms cash.

Their sheep have all been selected and bred with particular regard to constitution, length, thickness, and fineness of fleece, and would greatly improve the character of most of the flocks in the country.

Akron, Summit Co., Ohio, Aug. 21st, 1847.—1t.

FINE WOOLED BUCKS.

THE subscriber has for sale thirty superior Bucks, one and two years of age, of good size and form, raised from fine heavy fleeced ewes of the Saxon and Merino varieties. These Bucks were got by Green Mountain Hero, whose last fleece weighed 10 lbs. 8 oz., thoroughly washed under a waterfall. The quality of his wool, as tested by sorting at the factory, was as follows:

Extra,	4 lbs.	3 oz.	3d quality	1 lb.	6 oz.
1st quality	1	13	4th	0	10
2d	1	4	5th	1	2

These Bucks are numbered, and the subscriber has a record of the weight of their fleeces, also samples of wool from most of their fleeces. EBENEZER SMITH.

Middlefield, Hampshire co., Mass., Sept. 7, 1847.—2t.*

AFRICAN AND CHINESE GEESSE.

FOR sale, a pair of African Geese—(goslings of last spring,) of very large size. This variety has been called "the Swan Goose," and the "Pouched Goose." They are of the largest class.

Also a pair of Chinese Geese, bred by Messrs. MESSIER, near Fishkill. They are perhaps the handsomest in form and plumage, of all geese, are not large, but very prolific, breeding twice or more in a season, and are said to be excellent in flesh. Both varieties are decidedly ornamental to poultry-yards, and should belong to all fine places where there are suitable accommodations for them. Inquire at this office. Oct. 1, 1847.

TREES.

COMMERCIAL GARDEN AND NURSERY OF PARSONS & CO.,
Flushing, near New-York.

THIS establishment now covers an area of more than seventy acres, and the proprietors are enabled to furnish on the most reasonable terms, every desirable variety of Fruit and Ornamental Trees, Shrubs, Roses, Vines, &c.

During the past year, their collection has been enriched by many novelties from Europe, which will be found worthy the attention of amateurs. Catalogues furnished gratis on application, by mail, to Flushing, or personally at 10 Pine-St., New-York. Oct. 1, 1847.—1t.

HIGHLAND NURSERIES, NEWBURGH, N. Y.

A. SAUL & Co., (successors to A. J. Downing & Co.,) beg leave to inform the patrons of this establishment and the public in general, that their stock of FRUIT TREES for sale for autumn planting, is full and complete, comprising all that is choice and rare of recent introduction, as well as a full and large assortment of all the leading standard varieties.

Their stock of ORNAMENTAL TREES being unusually large, &c., they would particularly call public attention to their stock of the following species, as being extra fine:

EVERGREENS.

Astrian Pines,	Norway Spruce,
Scotch do.,	Junipers—varieties,
Weymouth do.,	Arbor Vitæ, do.
Balsam Fir,	Yews, &c., &c.
European Silver Fir,	

DECIDUOUS ORNAMENTAL TREES.

Horse Chestnut, Red,	Tulip Tree,
— White,	European Larch,
— Yellow,	Cucumber Magnolia
Maple, Sugar,	Umbrella do.
— Silver leaved,	Oriental Sycamore,
— Scarlet,	European Mountain Ash,
— Norway,	Willow-leaved Oak,
— English cork-barked,	Weeping Willows,
Aianthus,	European Linden,
Catalpa,	Southern Cypress,
Weeping Ash,	American Elm,
European do.,	Scotch Wych do.
American do.,	English do.
Kentucky Coffee,	Cork-barked do.
American Arbor Vitæ, for screens.	

Also Hawthorn, Buckthorn, and Privet Plants, together with a splendid stock of Osage Orange Plants for hedges.

A choice collection of Green-house Plants for sale in one lot or in parcels; for particulars see Horticulturist for September.

Catalogues sent gratis to post-paid applicants.

Highland Nurseries, Newburgh, Oct. 1, 1847.—2t.

FOR SALE.

THE full-blooded Durham Bull "Napoleon," bred by Charles Henry Hall, owned by the subscriber at Leeds, four miles from Catskill. His stock is very superior, and can be seen, if desired. He will be sold cheap, as the owner, having used him several years, wishes to change his bull.

JAMES VAN DUZEN.

Leeds, Greene Co., N. Y., Oct. 1—1t*

CHOICE FRUIT AND ORNAMENTAL TREES FOR SALE.

15,000 PEACH TREES, of about 30 different varieties. These will be sold in small quantity at 12½ cents each, and in large quantities at from \$6 to \$8 per hundred.

30,000 Native Wild PLUM SEEDLINGS, one year old, from two to three feet high, at \$8 per thousand.

100,000 APPLE SEEDLINGS, 1 year old; average height 12 inches; at \$3 per thousand.

Also on hand a very good assortment of Apple, Pear, Plum, Cherry, Apricot, and Nectarine Trees.

ORNAMENTAL TREES, of extra size, suitable for streets or lawns, consisting of Elms, Maples, European Linden, European Mountain Ash, European Larch, Norway Spruce, Firs, &c., &c. Also English Sycamore, and Sugar Maple Seedlings, from two to three feet high. Price, \$12 per thousand. Packing extra.

Trees will be carefully packed and delivered at the steamboat landing, or Kinderhook Depot, free of expense.

Catalogues furnished to all who wish, and post-paid letters and orders containing remittances, promptly attended to.

HENRY SNYDER.

Kinderhook, Oct. 1—1t*

THE CULTIVATOR

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Payable always in advance.

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PHILADELPHIA—G. B. Zieber & Co., Booksellers:

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